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Winnemucca District Proposed Resource Management Plan and Final Environmental Impact Statement

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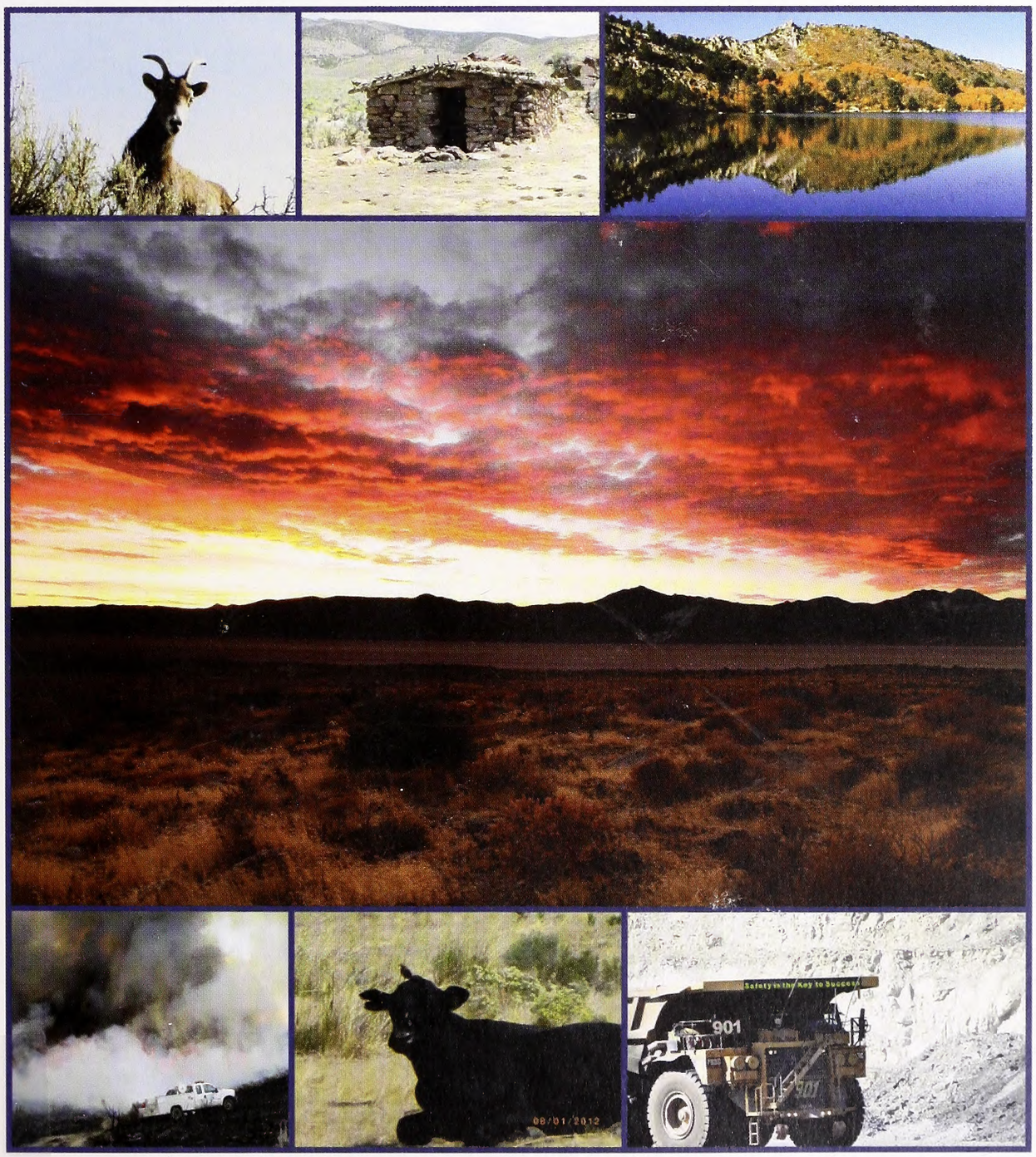
Volume 4: Appendices



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LIST OF ACRONYMS

Acronym or Abbreviation	Full Phrase
ACEC	area of critical environmental concern
AFY	acre-feet per year
AML	appropriate management level
AMP	allotment management plan
AMSL	above mean sea level
APHIS	Animal and Plant Health Inspection Service
APHIS-WS	Animal and Plant Health Inspection Service-Wildlife Services
AQ	air quality
ASPCA	American Society for the Prevention of Cruelty to Animals
ATV	all-terrain vehicle
AUM	animal unit month
BA	Biological Assessment
BCB	Backcountry Byways
BEA	Bureau of Economic Analysis
BIA	US Department of the Interior, Bureau of Indian Affairs
BLM	US Department of the Interior, Bureau of Land Management
BMPs	best management practices
BO	Biological Opinion
BPS	budget planning system
BRDHRCET	Black Rock Desert High Rock Canyon Emigrant Trails
CA	common to all alternatives
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CH_4	methane
CHP	cultural/historic/paleontological
CK	cave and karst resources
CNHT	California National Historic Trail
CNIDC	Central Nevada Interagency Dispatch Center
CO	carbon monoxide
CO_2	carbon dioxide
CO_{2e}	carbon dioxide equivalents
CSP	concentrated solar power
CR	cultural resources
CWA	Clean Water Act
CWPP	Community Wildfire Protection Plan
CWMA	Cooperative Weed Management Area
DFC	desired future condition
DM	Departmental Manual
DOE	Department of Energy
DOI	Department of Interior
EA	environmental assessment
EIS	environmental impact statement
EO	Executive Order
EPA	US Environmental Protection Agency
ERMA	extensive recreation management area
ES	Executive Summary
ESA	Endangered Species Act of 1973

LIST OF ACRONYMS *(continued)*

Acronym or Abbreviation	Full Phrase
ES&R	emergency stabilization and rehabilitation
FERC	Federal Energy Regulatory Commission
FIP	Federal Implementation Plan
FLPMA	Federal Land Policy and Management Act
FLTFA	Federal Land Transaction Facilitation Act
FMU	Fire Management Unit
FMUD	final multiple use decision
FOFEM	First Order Fire Effects Model
FONSI	Finding of No Significant Impact
FPA	fire program analysis
FR	Federal Register
FRCC	fire regime condition class
FW	fish and wildlife
G	geology
GAWS	general aquatic wildlife survey
GHG	greenhouse gas
GIS	geographical information system
GWP	global warming potential as carbon dioxide equivalents
HA	herd area
HAP	hazardous air pollution
HMA	herd management area
HMAP	herd management area plan
HMP	habitat management plan
HUA	herd use area
HVH	high value habitat
IBLA	Interior Board of Land Appeals
IDT	interdisciplinary team
IMP	interim management policy or plan
IOP	interagency operation plan
IPC	integrated pest control
IPCC	Intergovernmental Panel on Climate Change
IPM	Integrated Pest Management
ISA	instant study area
ITAs	Indian Trust Assets
KGRA	known geothermal resource area
LCT	Lahontan cutthroat trout
LG	livestock grazing
LR	lands and realty
LUP	land use plan
LWC	lands with Wilderness characteristics
MACT	maximum available control technology
MBTA	Migratory Bird Treaty Act
MFP	management framework plan
MIST	minimum impact suppression tactics

LIST OF ACRONYMS *(continued)*

Acronym or Abbreviation	Full Phrase
MOU	memorandum of understanding
MR	mineral resources: leasable, locatable, salable
NAAQS	National Ambient Air Quality Standards
NAC	Nevada Administrative Code
NASA	National Aeronautics and Space Administration
NCA	National Conservation Area
NDEP	Nevada Division of Environmental Protection
NDOA	Nevada Department of Agriculture
NDOM	Nevada Division of Minerals
NDOT	Nevada Department of Transportation
NDOW	Nevada Department of Wildlife
NDVI	Normalized Difference Vegetation Index
NDWR	Nevada Division of Water Resources
NEPA	National Environmental Policy Act of 1969
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NGO	non-government organizations
NHPA	National Historic Preservation Act
NHT	National Historic Trail
NOA	Notice of Availability
NOI	Notice of Intent
N_2O	Nitrous oxide
NO_x	Nitrogen oxides
NPS	National Park System
NRCS	US Department of Agriculture, Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSR	new source review
NSO	no surface occupancy
Sierra Front/NW RAC	Sierra Front Northwestern Great Basin Resource Advisory Council
NWSRS	National Wild and Scenic River Systems
NV	Nevada
OCTA	Oregon-California Trail Association
OHV	off-highway vehicle
ORV	Outstanding Remarkable Value
PAH	polycyclic aromatic hydrocarbon
PCPI	per capita personal income
PD	Paradise-Denio
PE	chemical and biological control
PFC	proper functioning condition
pH	the symbol for the logarithm of the reciprocal of hudrogen ion concentration in gram atoms per liter, measuring the acidity or alkalinity of a solution
PL	public law
$PM_{2.5}$	particulate matter smaller than 2.5 microns in diameter
PM_{10}	particulate matter smaller than 10 microns in diameter
PMU	population management unit
ppm	part per million

LIST OF ACRONYMS *(continued)*

Acronym or Abbreviation	Full Phrase
PR	paleontological resources
PRMP	Proposed Resource Management Plan
PS	public health and safety
PSD	prevention of significant deterioration
PV	photovoltaics
PVA	prospectively valuable area
PWR	Public Water Reserve
PYFC	Potential Fossil Yield Classification
R	recreation
R&PP	Recreation and Public Purposes Act
RAC	resource advisory council
RAS	Range Administration System
RAMS	risk assessment and mitigation strategy
RE	renewable energy
RFD	reasonably foreseeable development
RFDS	Reasonably Foreseeable Development Scenario
RFFA	reasonably foreseeable future action
RIP	range improvement project
RMIS	Recreation Management Information System
RMP	resource management plan
RMZ	recreation management zone
RNA	Research Natural Area
ROD	record of decision
ROG	reactive organic compounds
ROI	region of influence
ROS	Recreation Opportunity Spectrum
ROW	right-of-way
S	soils
SG	Sonoma-Gerlach SASEM Simple Approach Smoke Estimation Model
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SMA	Special Management Area
SNPLMA	Southern Nevada Public Land Management Act
SOG	standard operating guideline
SOP	standard operating procedure
SO_x	sulphur oxides
SRH	standards for rangeland health
SRMA	special recreation management area
SRP	special recreation permit
SSS	special status species
T&E	threatened and endangered
TA	transportation and access
TC	tribal consultation
TCP	traditional cultural property
TDS	total dissolved solids
TIP	Tribal Implementation Plan
TM	transportation and travel management

LIST OF ACRONYMS *(continued)*

Acronym or Abbreviation	Full Phrase
TMDL	total maximum daily load
TNEB	thriving natural ecological balance
TNR	temporary nonrenewable
TSP	total suspended particles
TSS	total suspended solids
US	United States
USC	United States Code
USDA	United States Department of Agriculture
USDI	United States Department of the Interior
USFS	United States Department of Agriculture, Forest Service
USFWS	US Department of the Interior, Fish and Wildlife Service
USGS	US Geological Survey
VF	vegetation forest and woodland products
VOC	volatile organic compounds
VR	vegetation rangelands
VRI	visual resource inventory
VRM	visual resource management
VRW	vegetation riparian and wetlands
VW	vegetation weeds
WA	wilderness area
WAFWA	Western Association of Fish and Wildlife Agencies
WAPT	Wildlife Action Plan Team
WD	Winnemucca District
WDM	wildlife damage management
WDO	Winnemucca District Office
WFDSS	Wildland Fire Decision Support System
WFM	wildland fire ecology management
WFRHBA	Wild Free Roaming Horses and Burros Act
WFSA	wildland fire situation analysis
WHB	wild horses and burros
WR	water resources
WSA	wilderness study area
WSR	wild and scenic river
WUG	Western Utility Group
WUI	wildland urban interface
WWV	watchable wildlife viewing site

APPENDIX A

CHAPTER 2 ALTERNATIVE FIGURES

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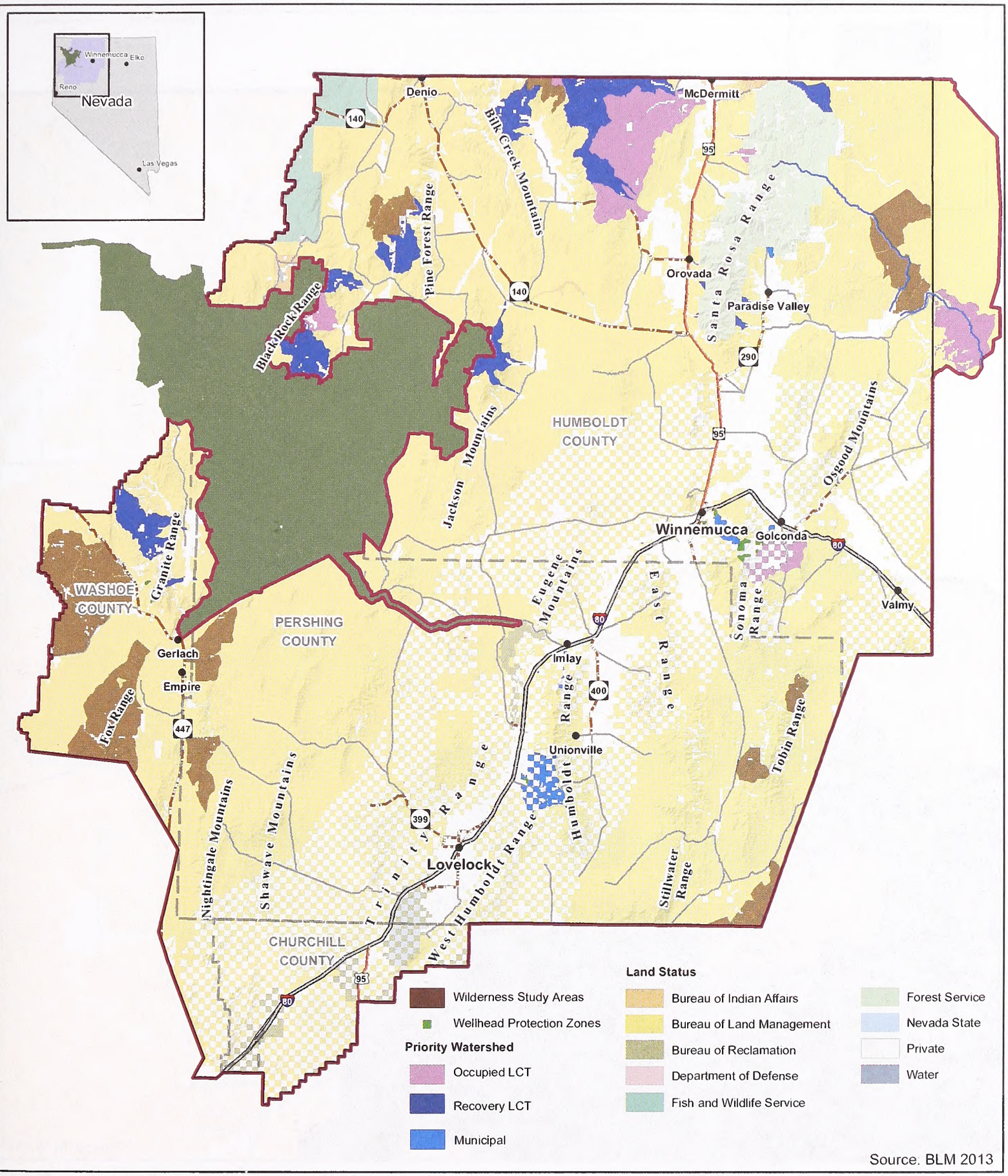

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Legend

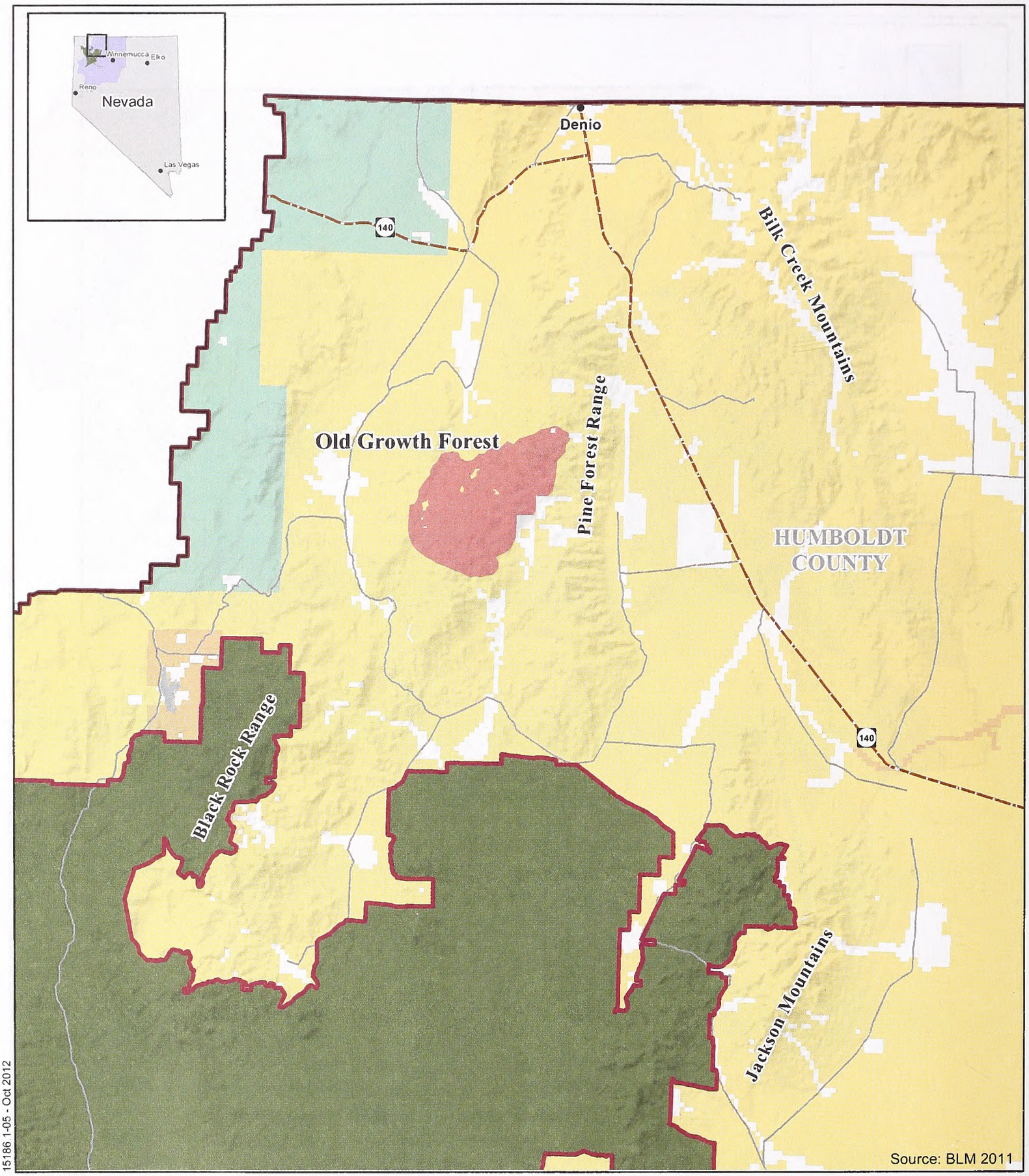
- BLM Winnemucca Office Administrative Boundary
- BLM Winnemucca RMP Decision Area Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Winnemucca District RMP Priority Watersheds - Alternatives B-D

Northwest Nevada

Figure 2-1



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Legend

- Old Growth Forest
- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- Towns
- County Road
- State Highway

Land Status

- Bureau of Indian Affairs
- Bureau of Land Management
- Fish and Wildlife Service
- Private

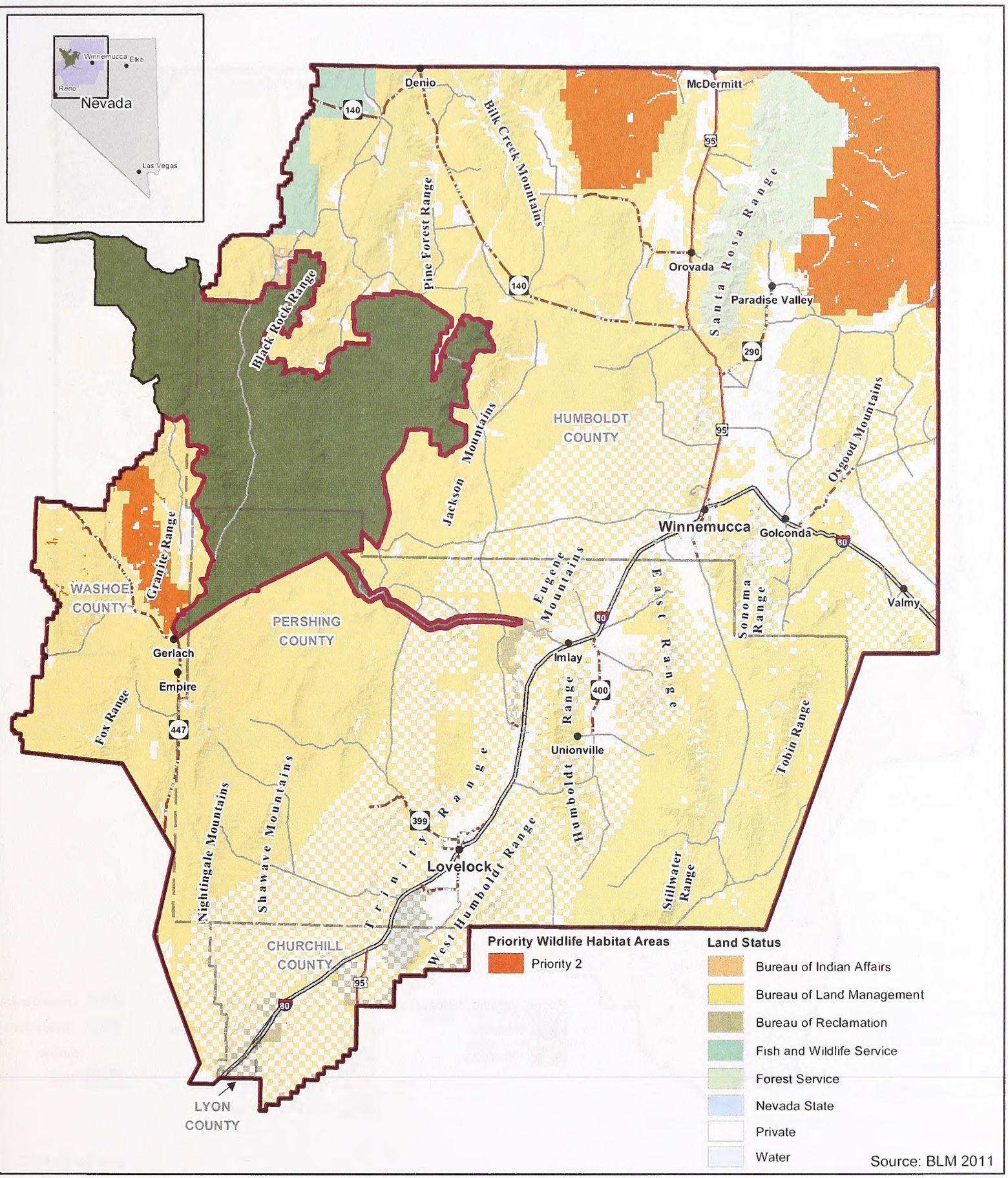
N W E S

0 4 8 Miles

Winnemucca District RMP Old Growth Forest - Alternatives C (Options 1 and 2) & D

Northwest Nevada

Figure 2-2



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Winnemucca District RMP
Priority Wildlife Habitat Areas - Alternative B

Legend

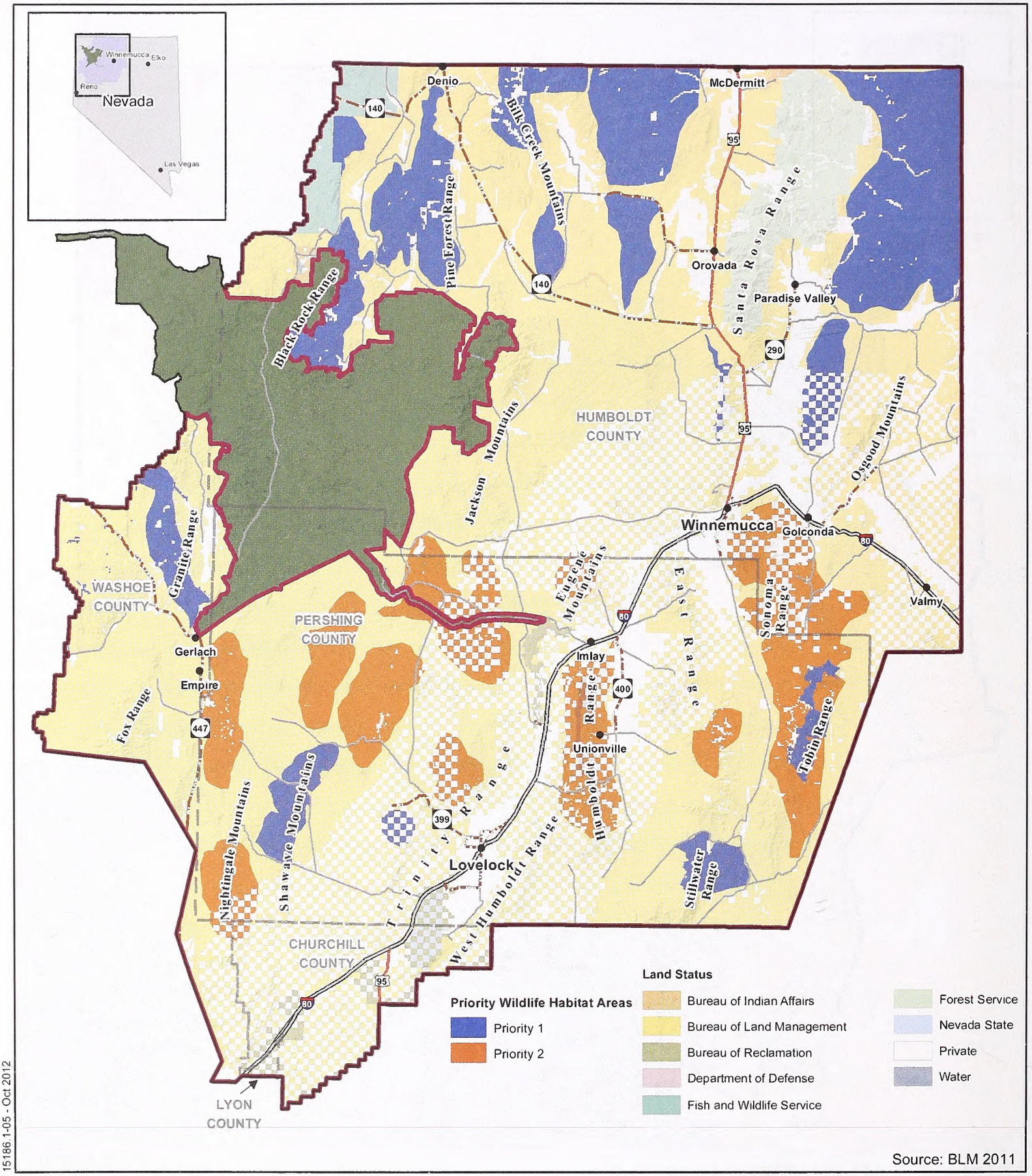
- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

N W E S

0 10 20 Miles

Northwest Nevada

Figure 2-3



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Winnemucca District RMP
Priority Wildlife Habitat Areas - Alternative C (Options 1 and 2)

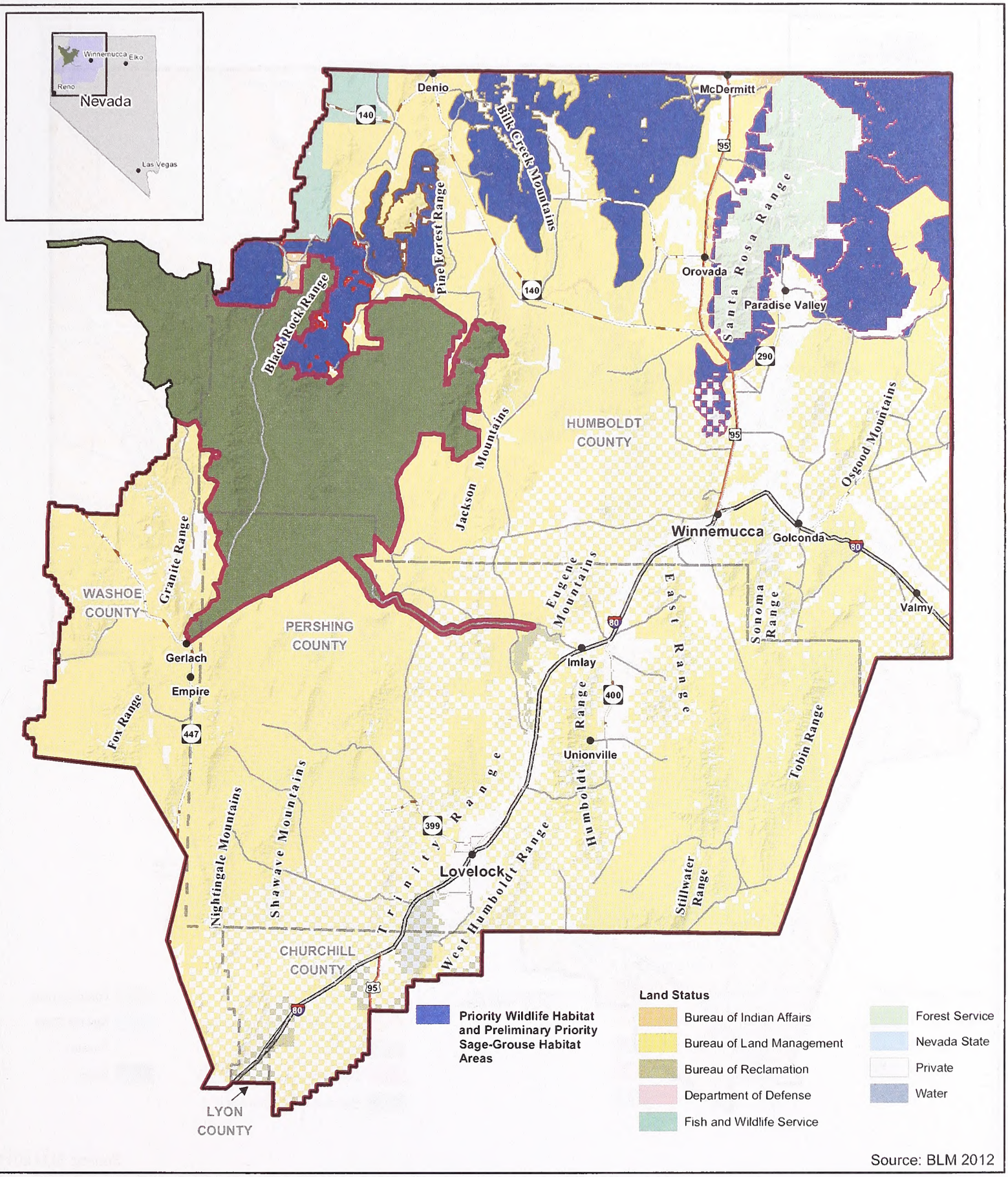
Northwest Nevada

Figure 2-4

Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles



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0 10 20 Miles

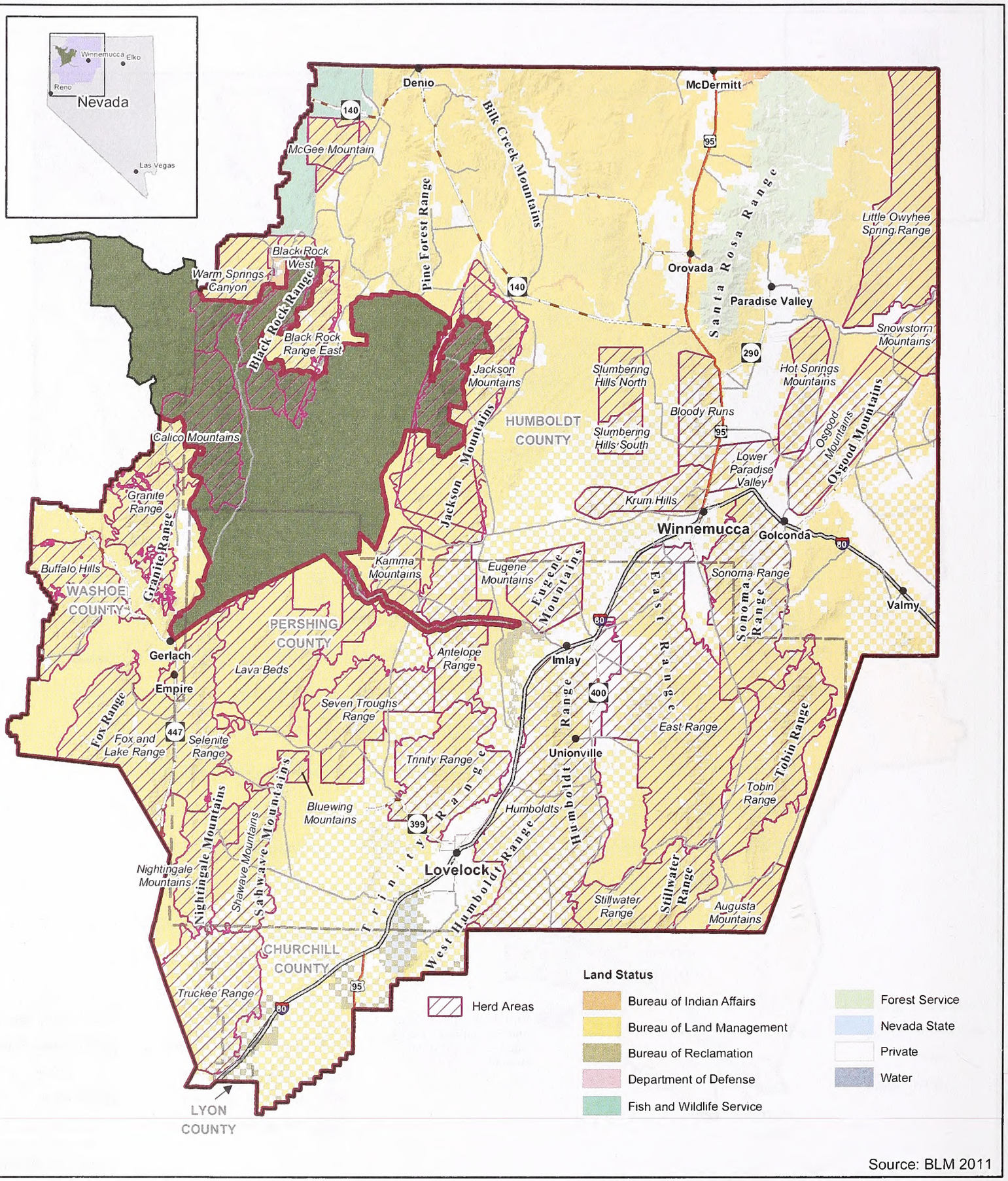
Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

Winnemucca District RMP Priority Wildlife Habitat Areas - Alternative D

Northwest Nevada

Figure 2-5



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Legend

- BLM Winnemucca District Administrative Boundary
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- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

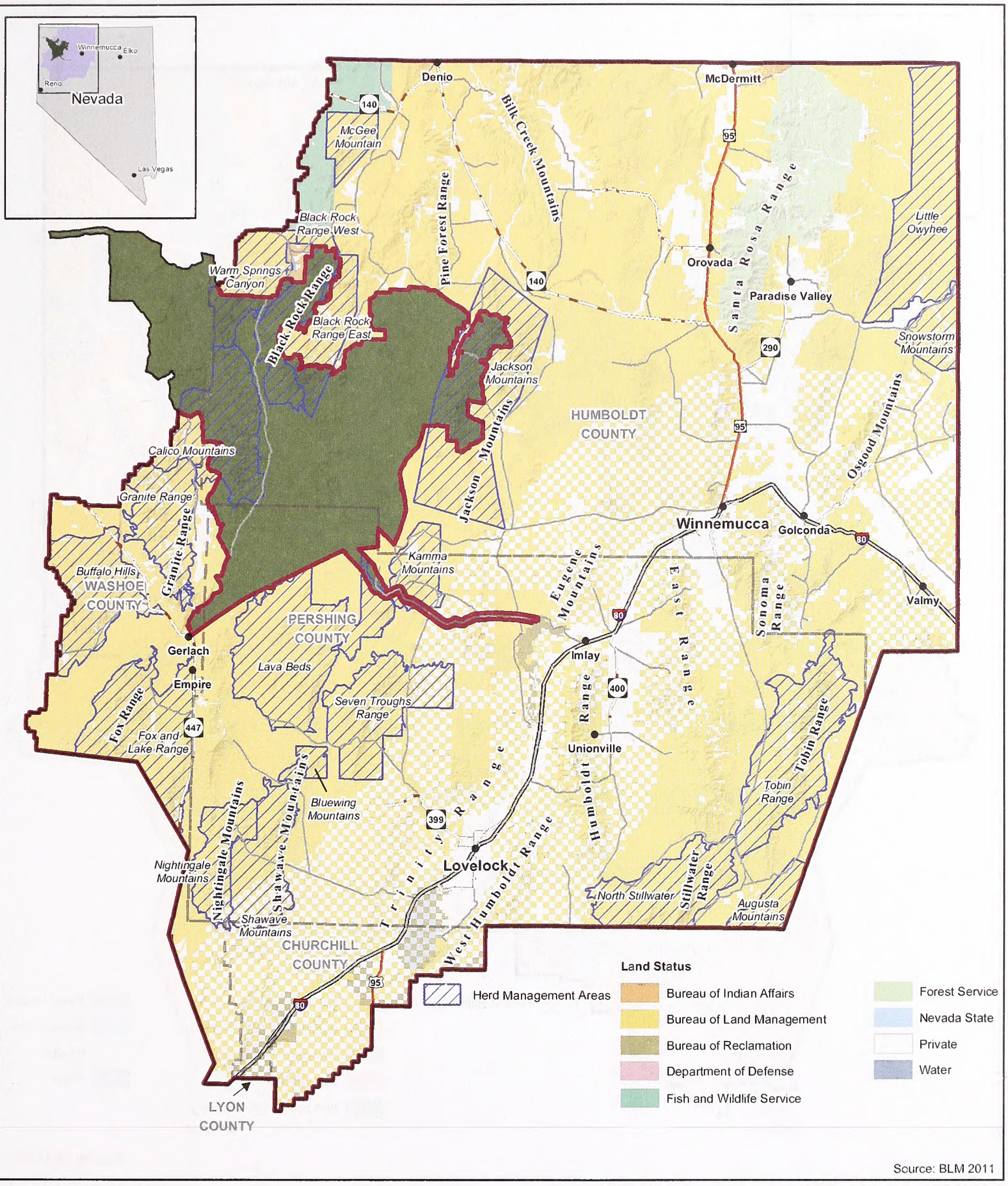
N W E S

0 10 20 Miles

Winnemucca District RMP Herd Areas - Alternatives A-D

Northwest Nevada

Figure 2-6



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- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Winnemucca District RMP Herd Management Areas - Alternative A

Northwest Nevada

Figure 2-7

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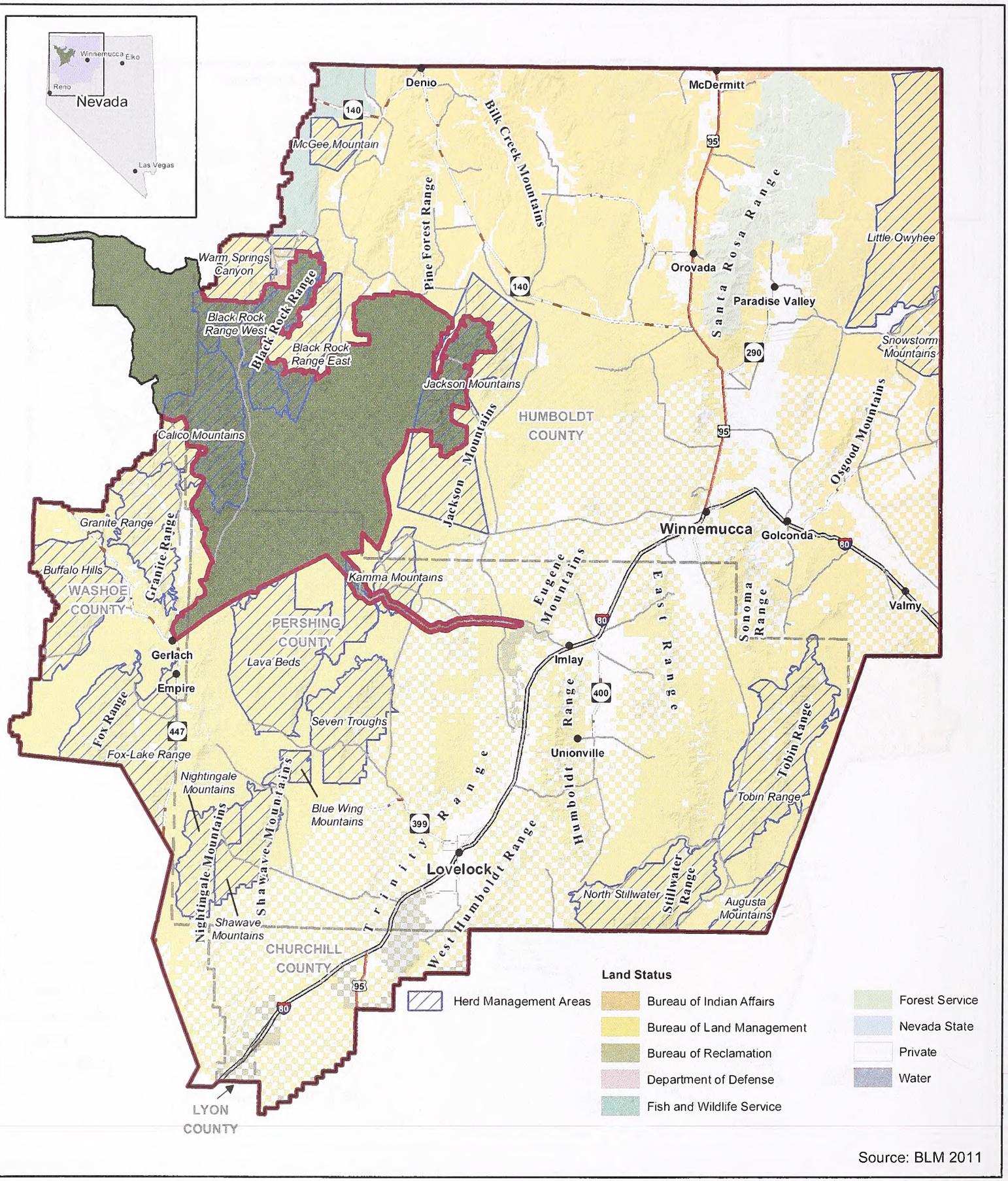

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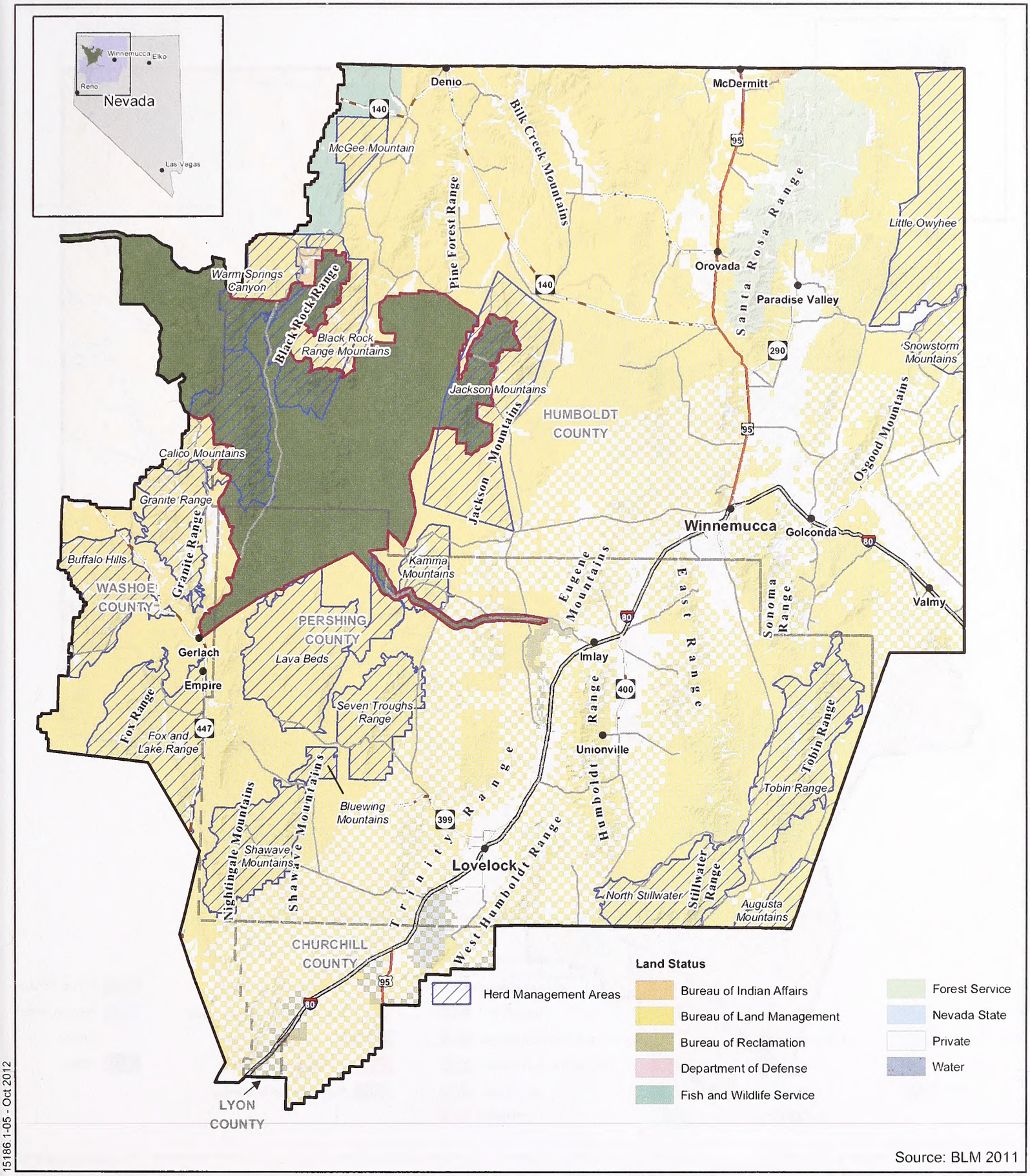
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Winnemucca District RMP Herd Management Areas - Alternative B

Northwest Nevada

Figure 2-8



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Legend

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- BLM Winnemucca RMP Boundary
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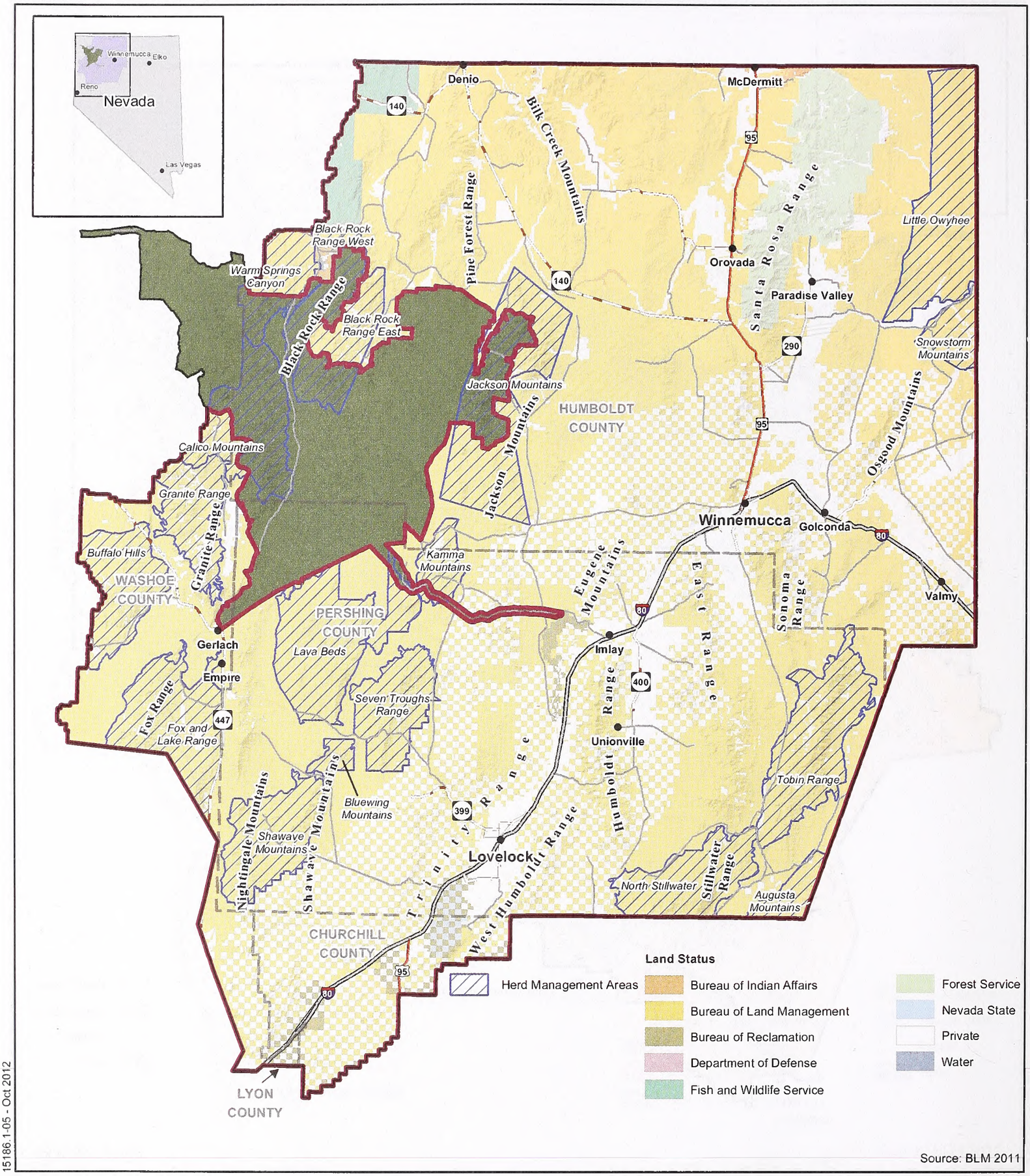
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Winnemucca District RMP Herd Management Areas - Alternative C (Options 1 and 2)

Northwest Nevada

Figure 2-9



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- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
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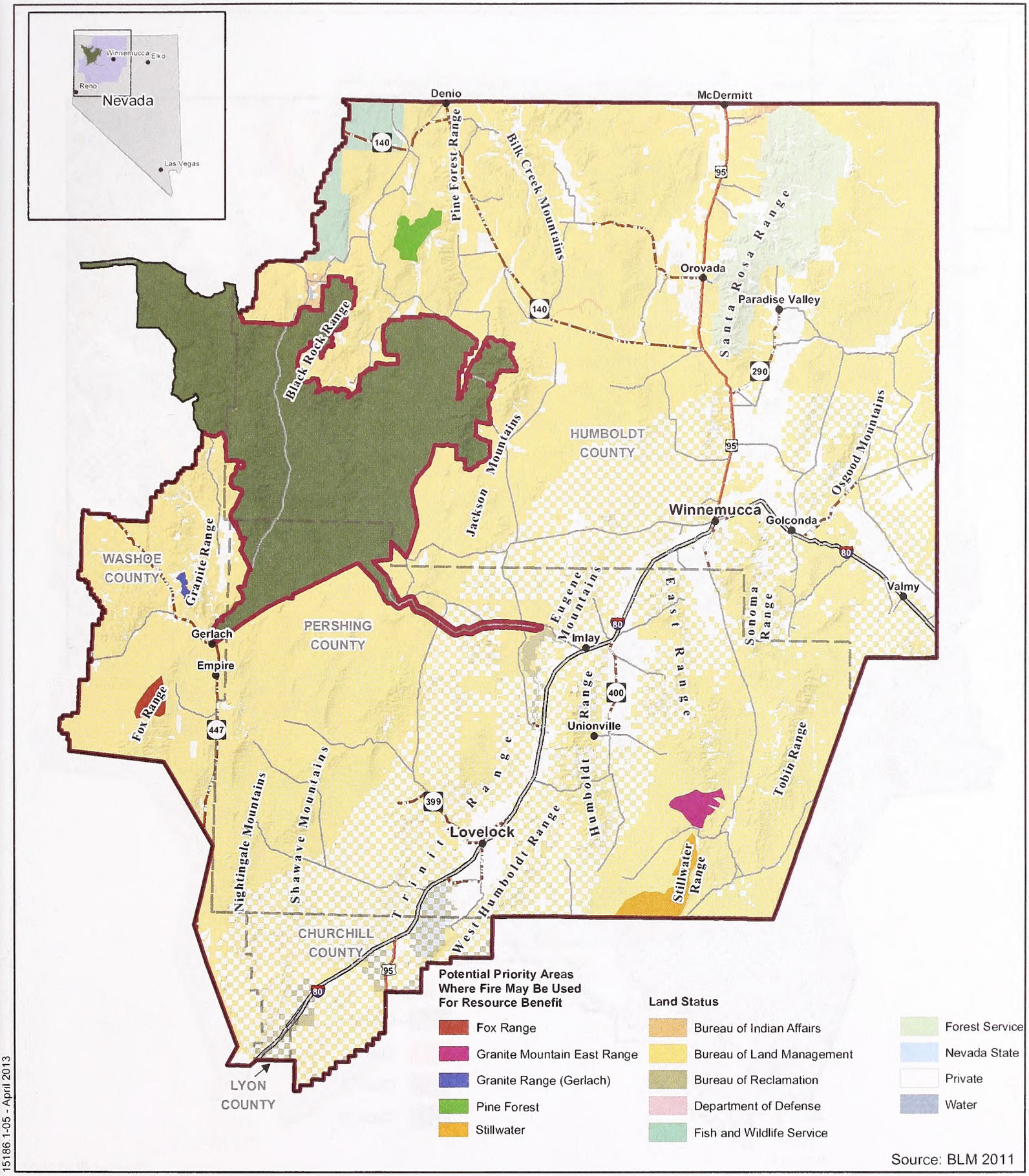
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Winnemucca District RMP Herd Management Areas - Alternative D

Northwest Nevada

Figure 2-10



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N W E S

0 10 20 Miles

Legend

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- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
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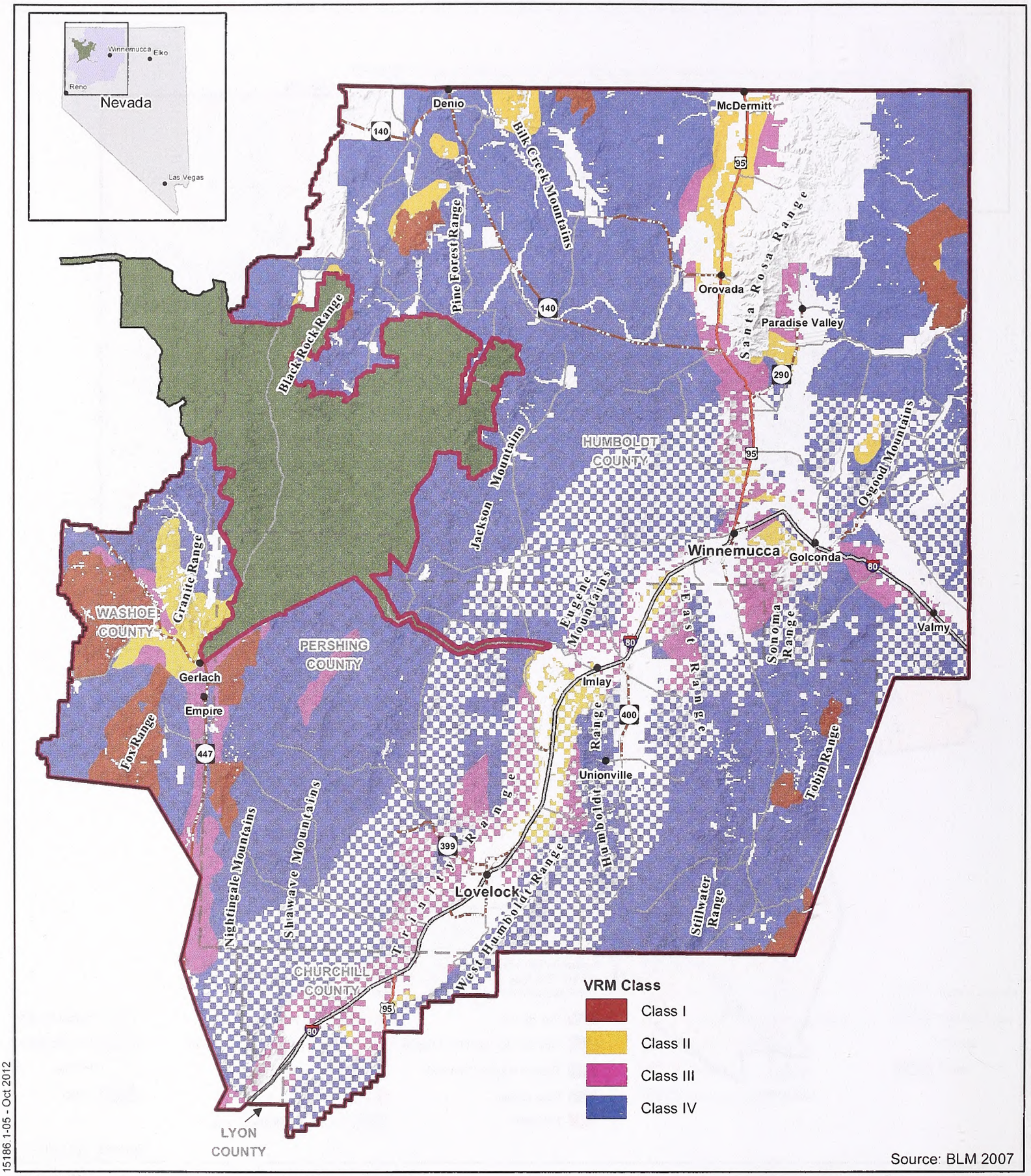
- County Road
- State Highway

Winnemucca District RMP
Potential Full Spectrum Fire Management Areas, Including to Achieve Resource Benefits- Alternatives B and D

Northwest Nevada

Figure 2-11



15186 1-05 - Oct 2012

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Legend

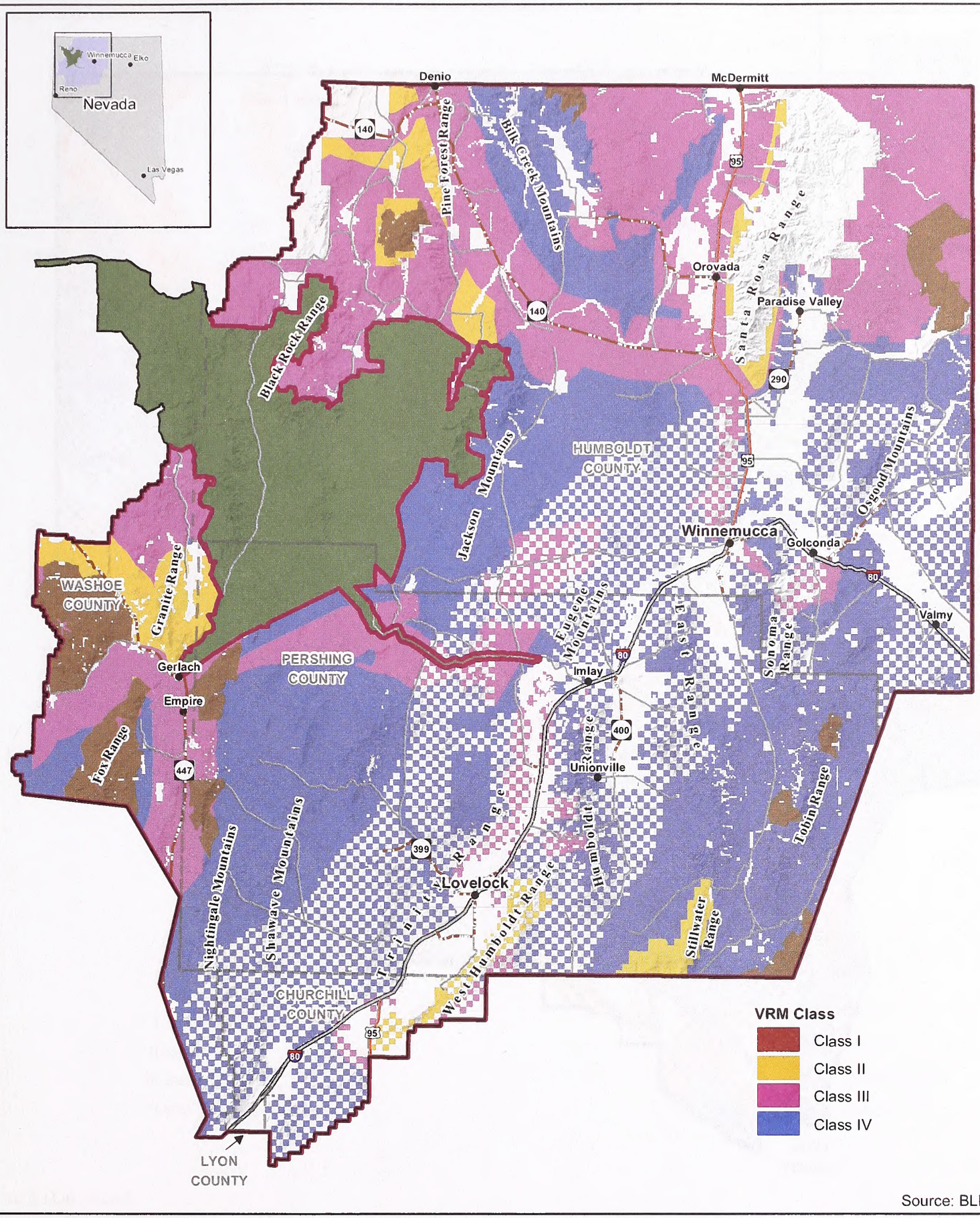
- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Winnemucca District RMP
Visual Resource Management Areas - Alternative A

Northwest Nevada

Figure 2-12



Source: BLM 2007

15186 1-05 - Oct 2012

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Winnemucca District RMP
Visual Resource Management Areas - Alternative B

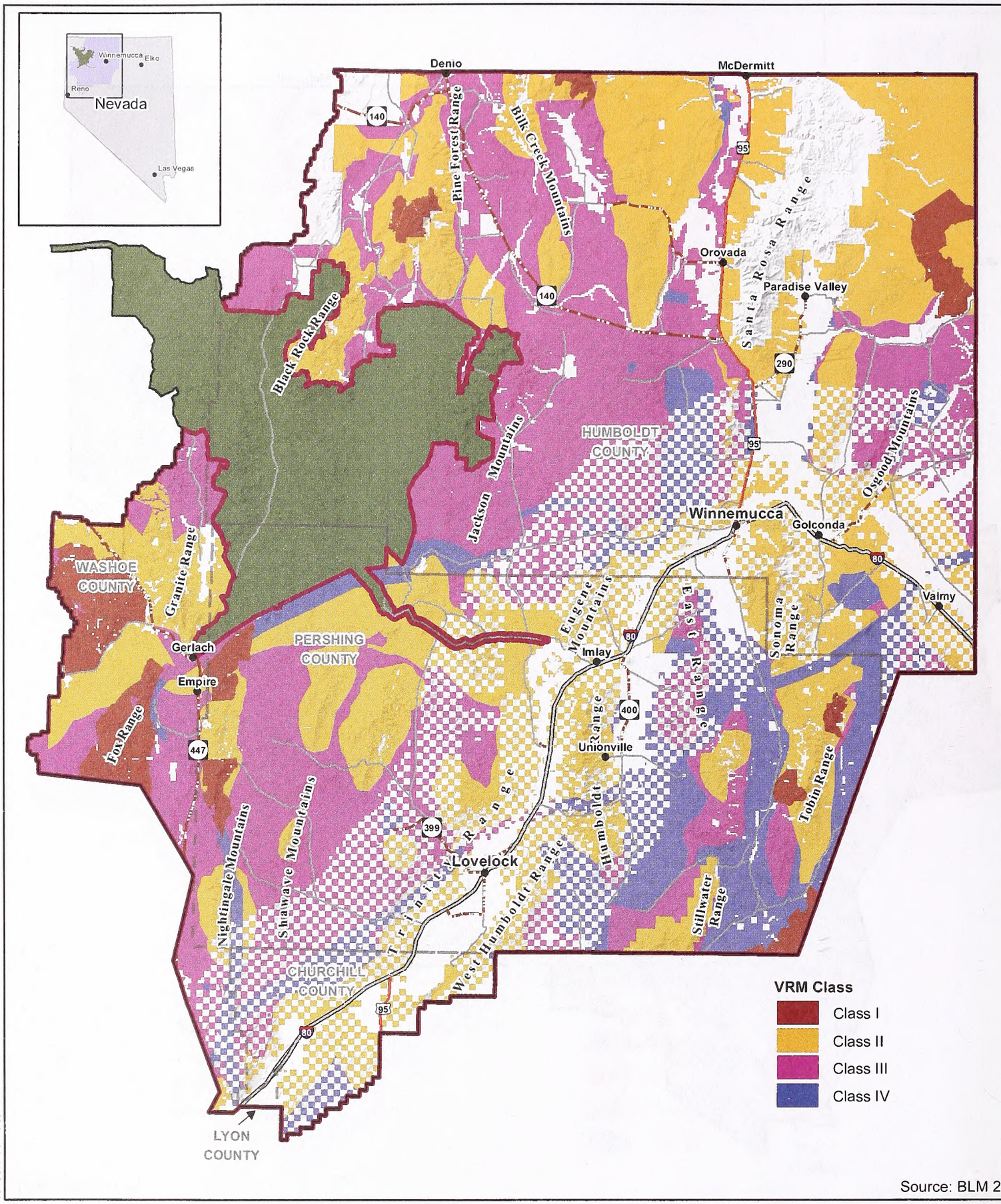
Northwest Nevada

Figure 2-13

Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles



15186 1-05 - Oct 2012

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Legend

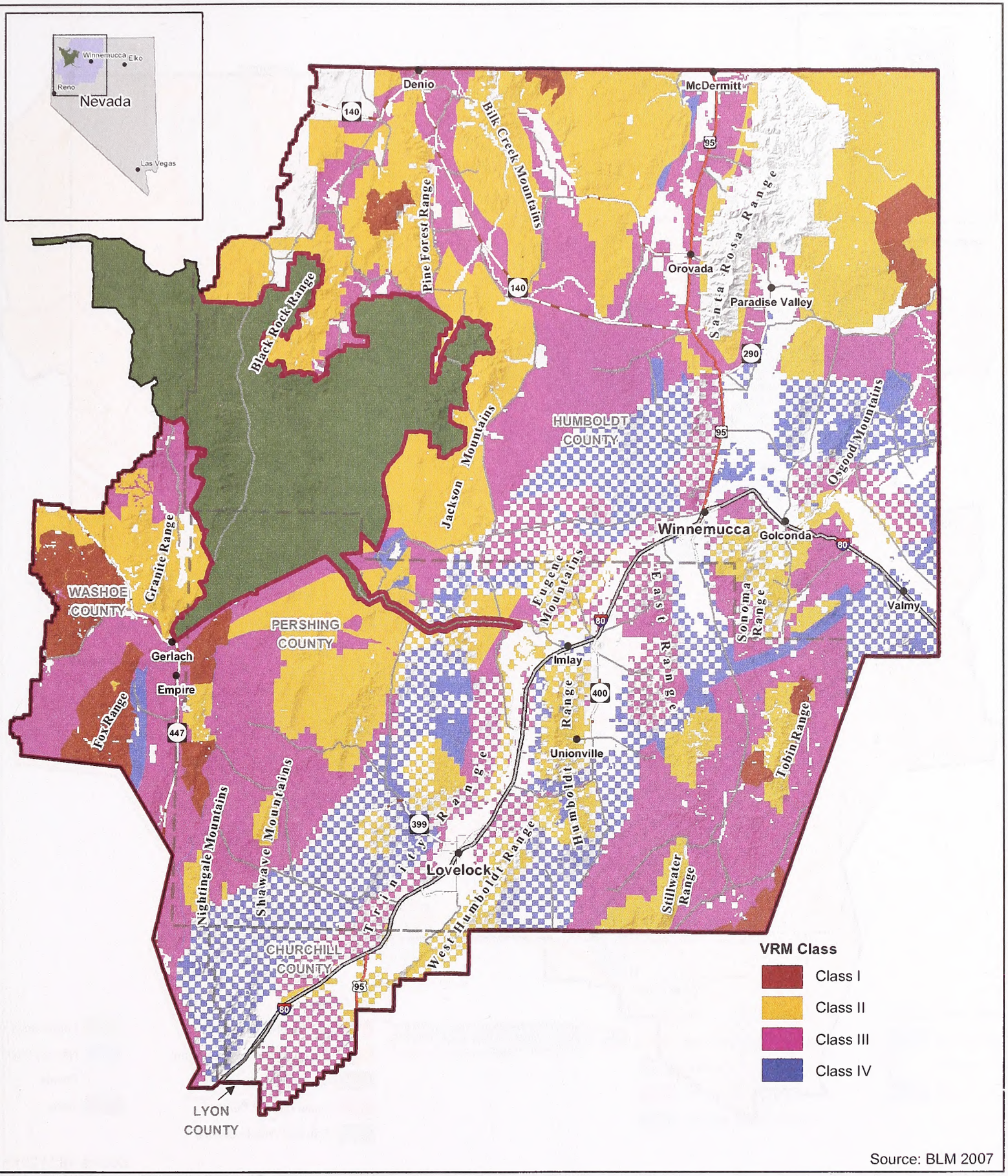
- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Winnemucca District RMP
Visual Resource Management Areas - Alternative C (Options 1 and 2)

Northwest Nevada

Figure 2-14



Source: BLM 2007

15186.1-05 - Oct 2012

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Winnemucca District RMP
Visual Resource Management Areas - Alternative D

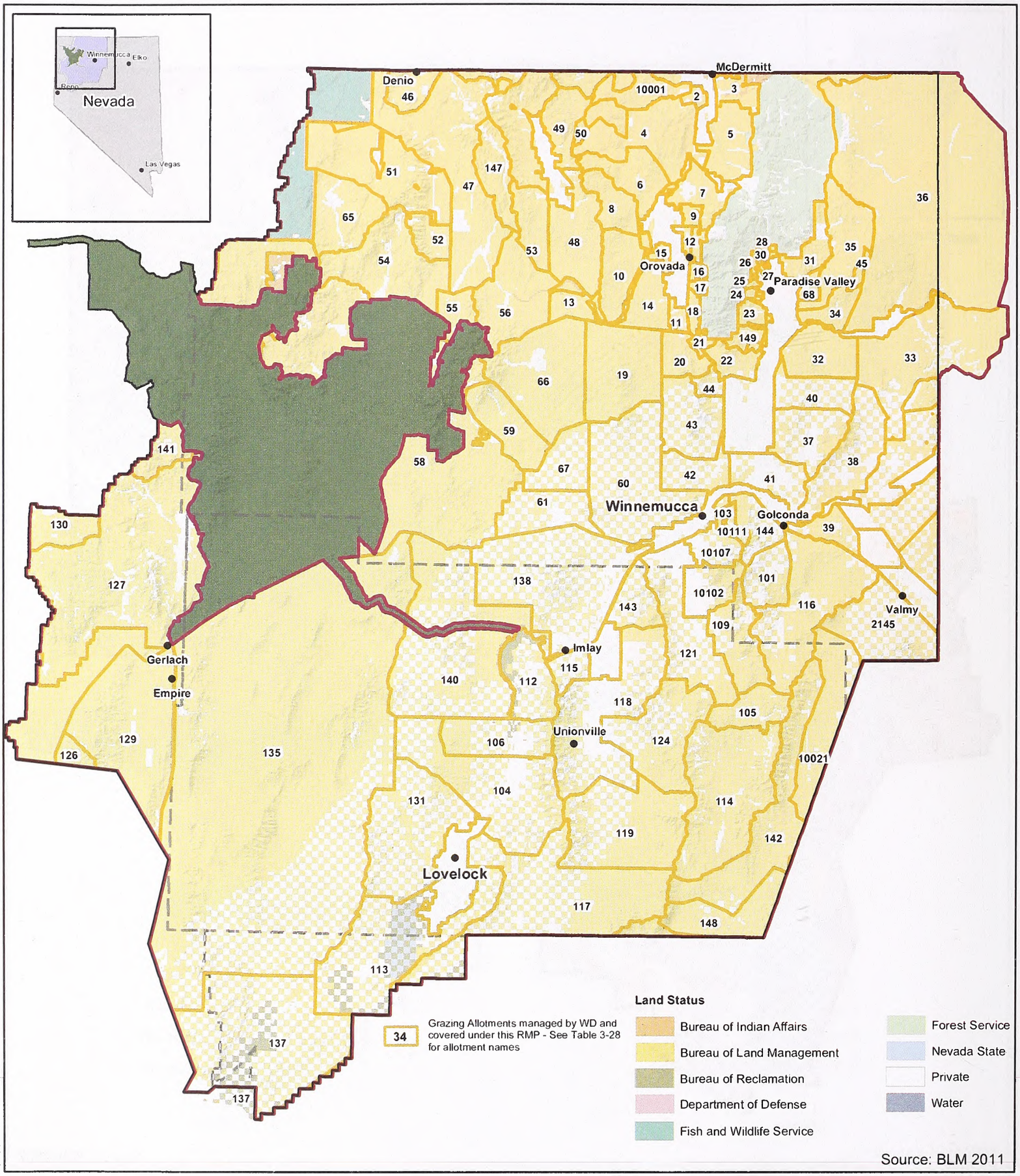
Northwest Nevada

Figure 2-15

Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles



15186.1-05 - June 2013

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N W E S

0 10 20 Miles

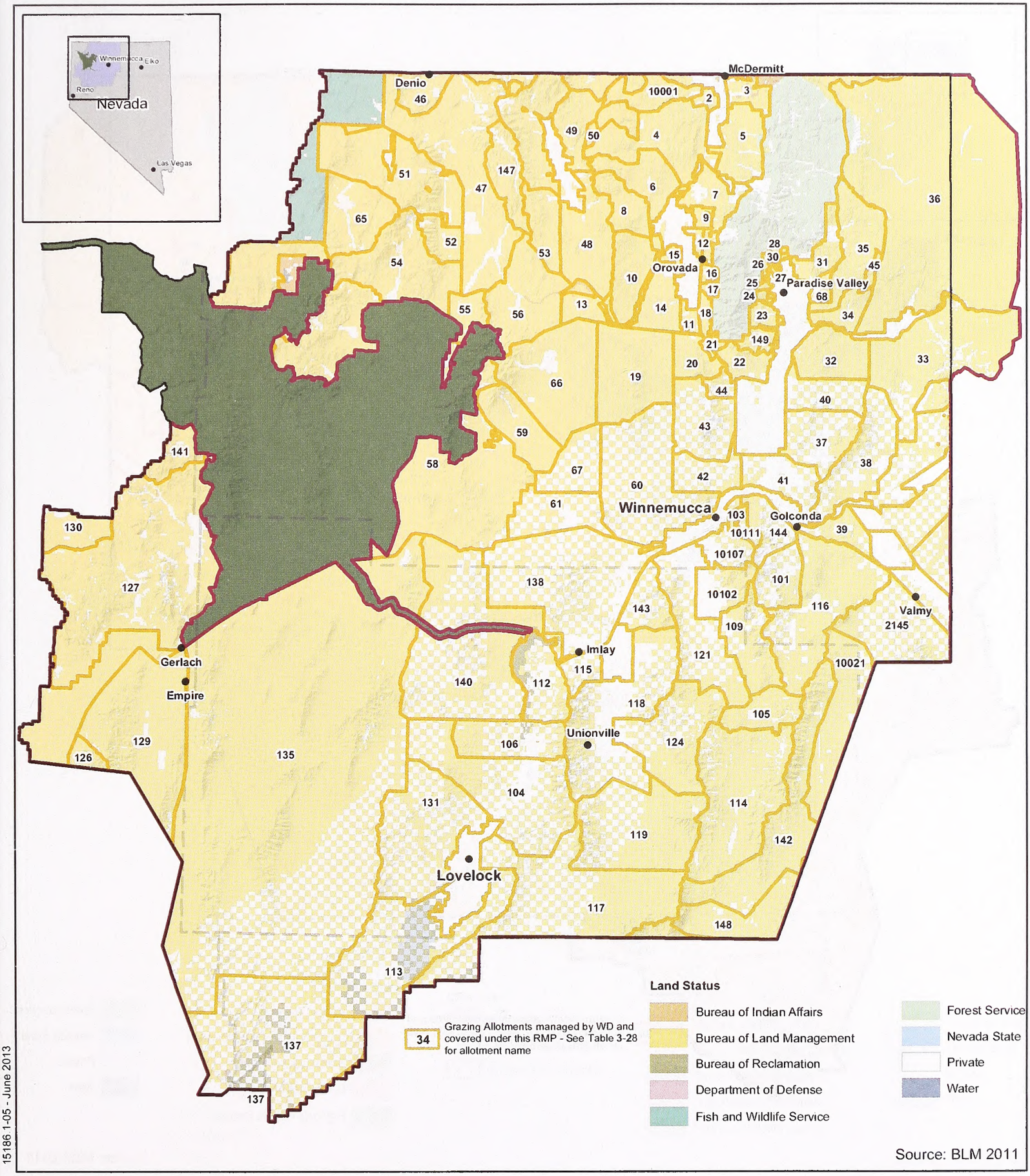
Legend

- BLM Winnemucca Office Administrative Boundary
- BLM Winnemucca RMP Decision Area Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns

Winnemucca District RMP Grazing Allotments - Alternatives A & B

Northwest Nevada

Figure 2-16



15186 1-05 - June 2013

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N
W E
S

0 10 20 Miles

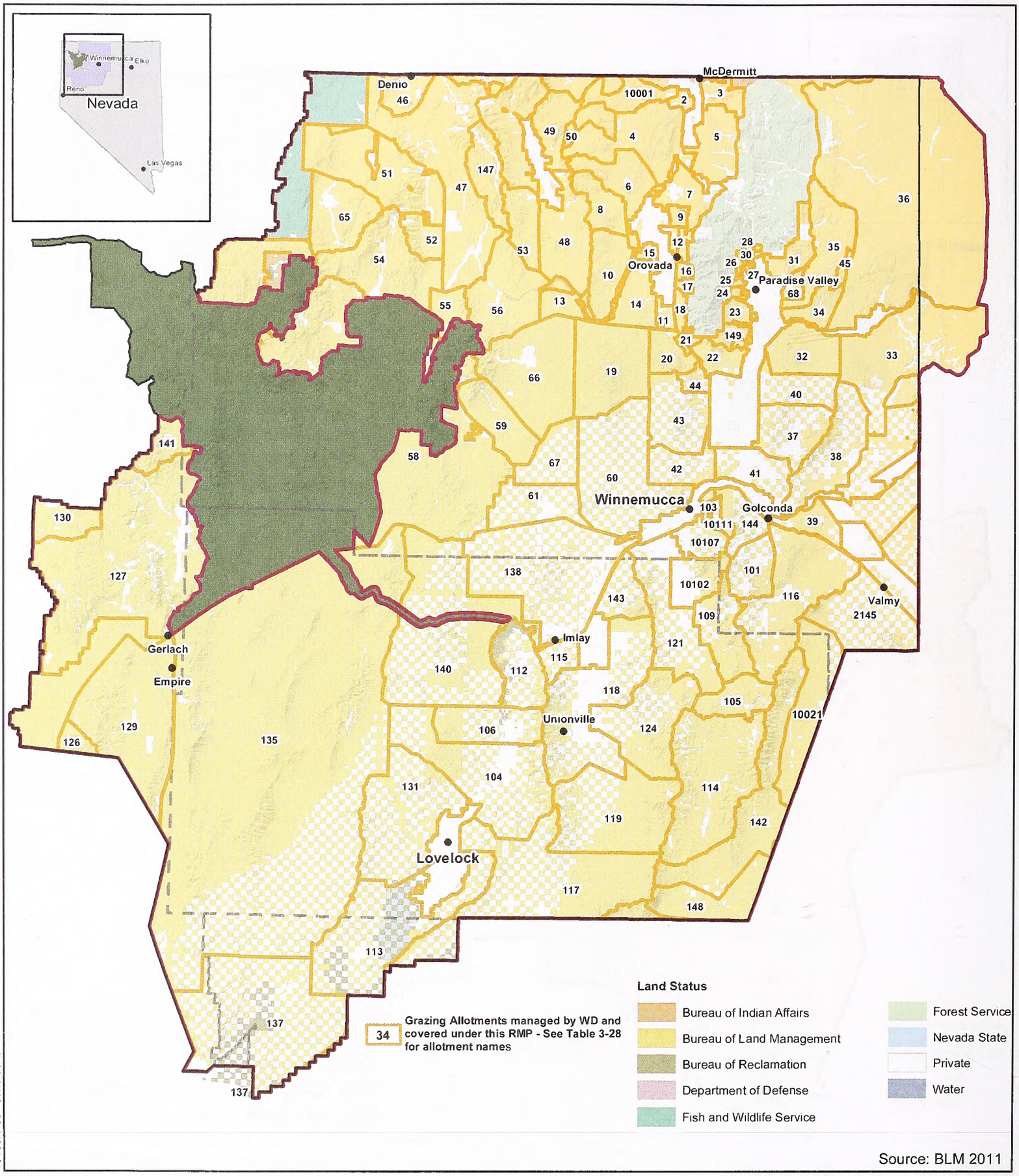
Legend

- BLM Winnemucca Office Administrative Boundary
- BLM Winnemucca RMP Decision Area Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns

Winnemucca District RMP Grazing Allotments - Alternative C (Option 1)

Northwest Nevada

Figure 2-17



15186.1-05 - June 2013

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Legend

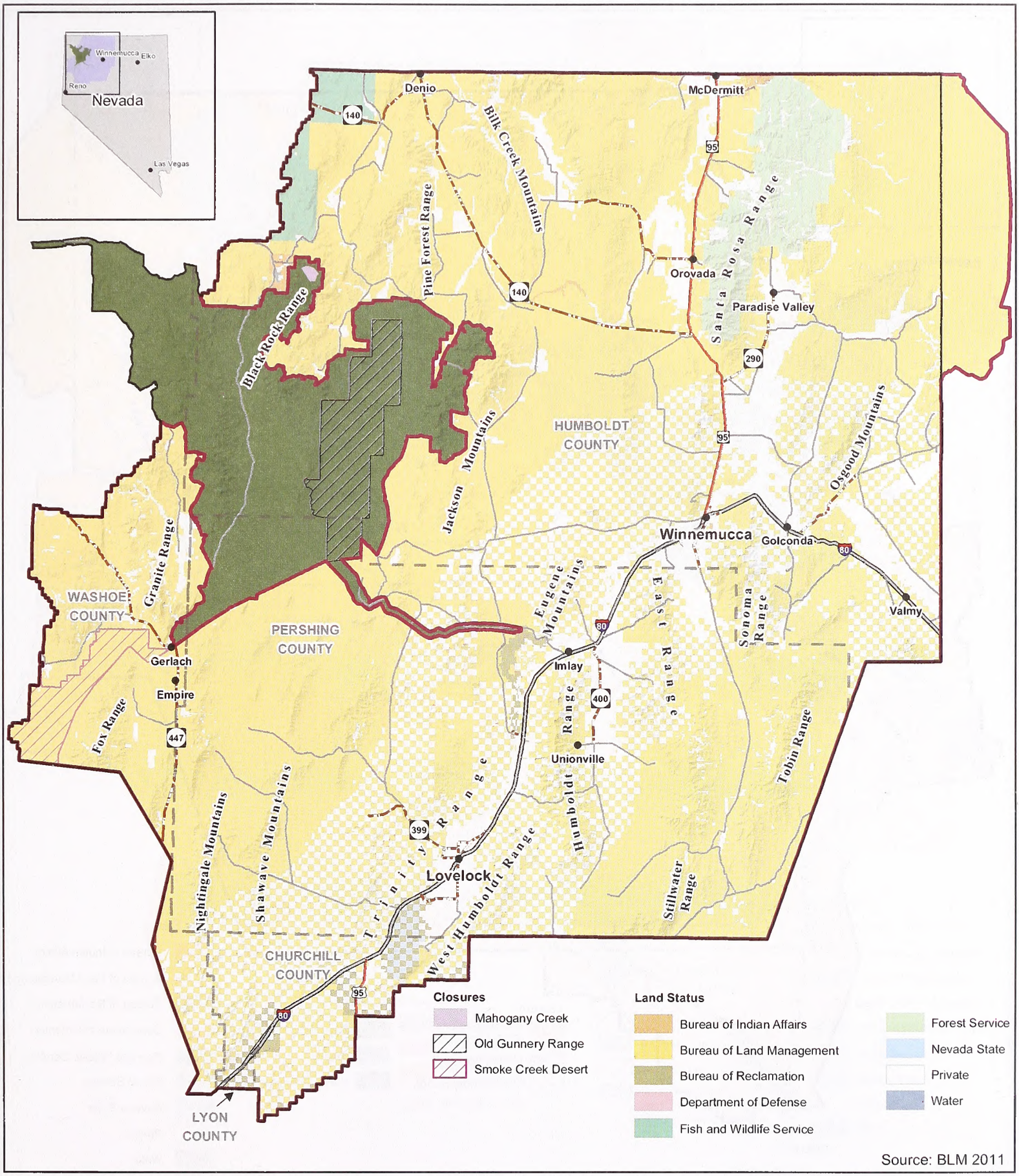
- BLM Winnemucca Office Administrative Boundary
- BLM Winnemucca RMP Decision Area Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns

0 10 20 Miles

Winnemucca District RMP Grazing Allotments - Alternative D

Northwest Nevada

Figure 2-18



15186 1-05 - June 2013

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Legend

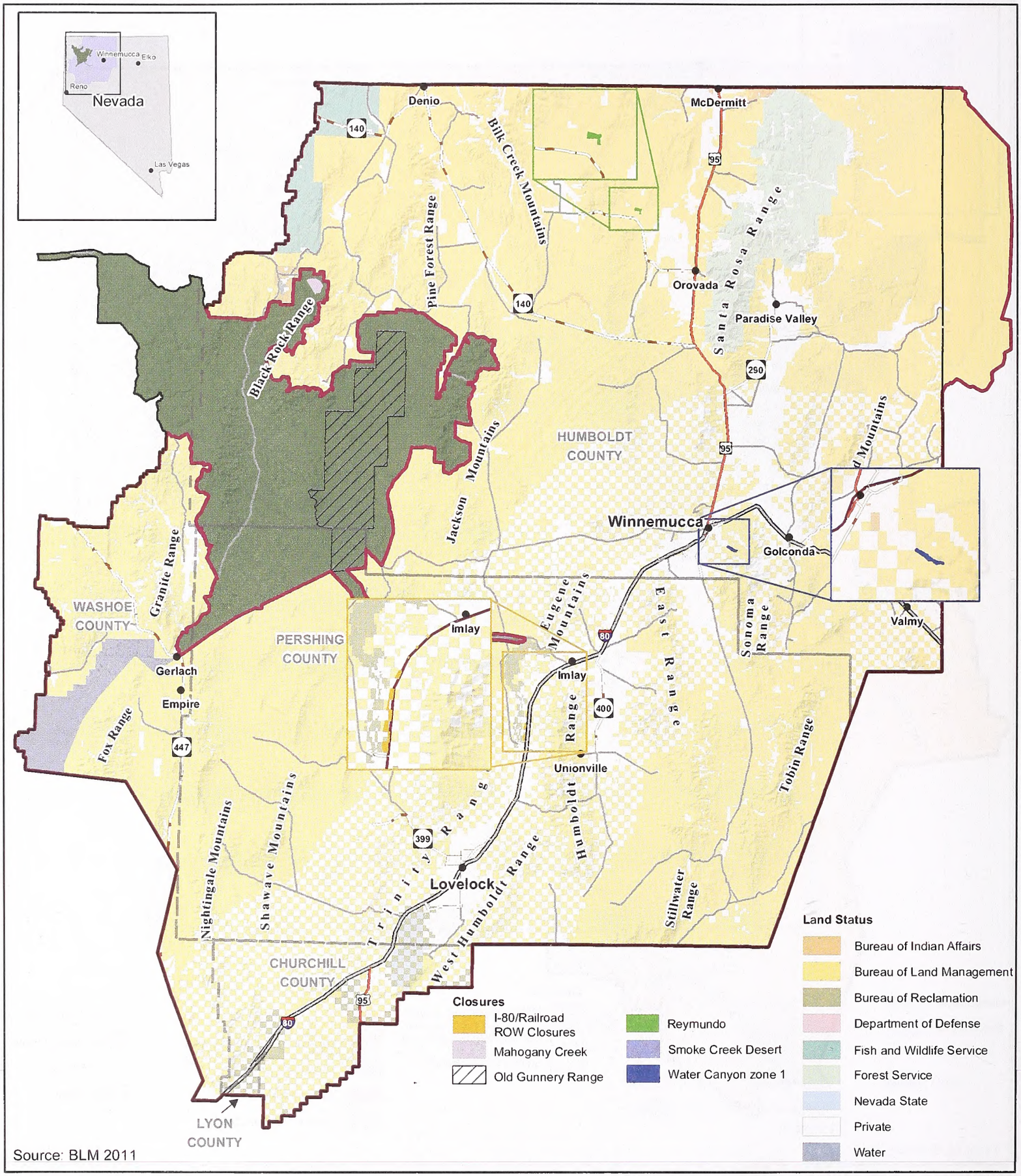
- BLM Winnemucca Office Administrative Boundary
- BLM Winnemucca RMP Decision Area Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Winnemucca District RMP Proposed Grazing Closures - Alternative B

Northwest Nevada

Figure 2-19



15186.1-05 - June 2013

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Legend

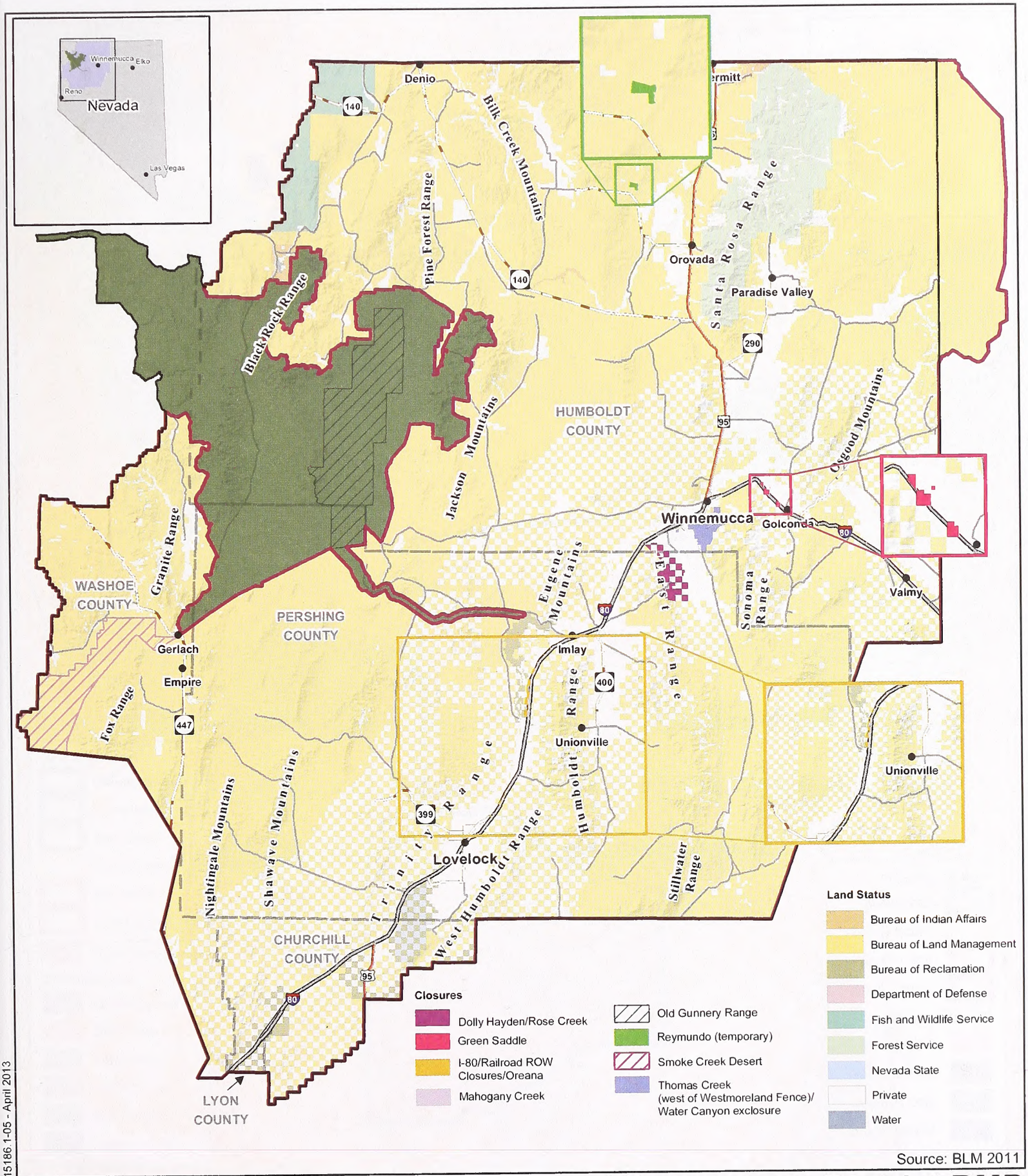
- BLM Winnemucca Office Administrative Boundary
- BLM Winnemucca RMP Decision Area Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Winnemucca District RMP Proposed Grazing Closures - Alternative C (Option 1)

Northwest Nevada

Figure 2-20



Source: BLM 2011

15186.1-05 - April 2013

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Legend

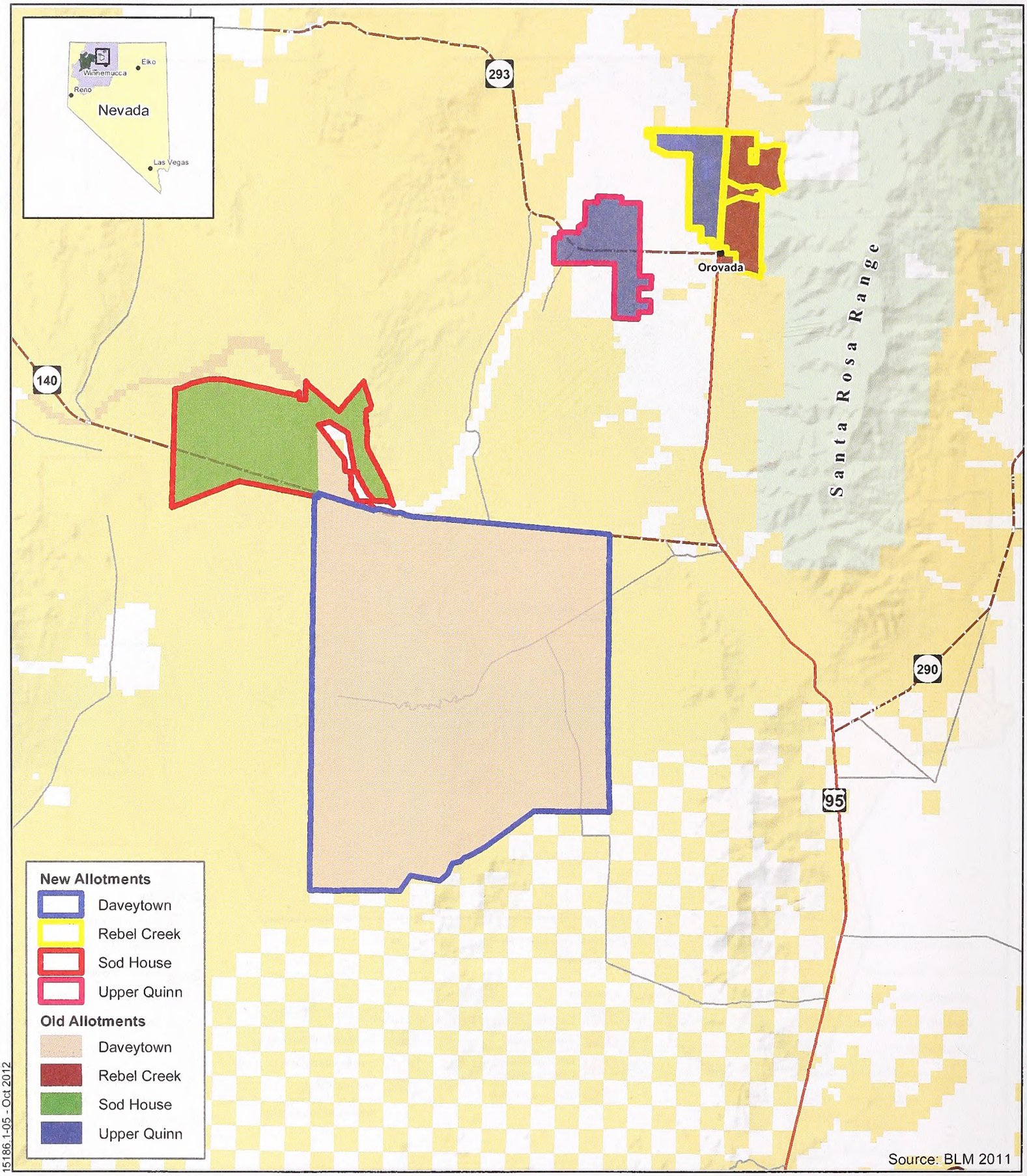
- BLM Winnemucca Office Administrative Boundary
- BLM Winnemucca RMP Decision Area Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Winnemucca District RMP Proposed Grazing Closures - Alternative D

Northwest Nevada

Figure 2-21



15186.1-05 - Oct 2012

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N
W E
S

0 3 6 Miles

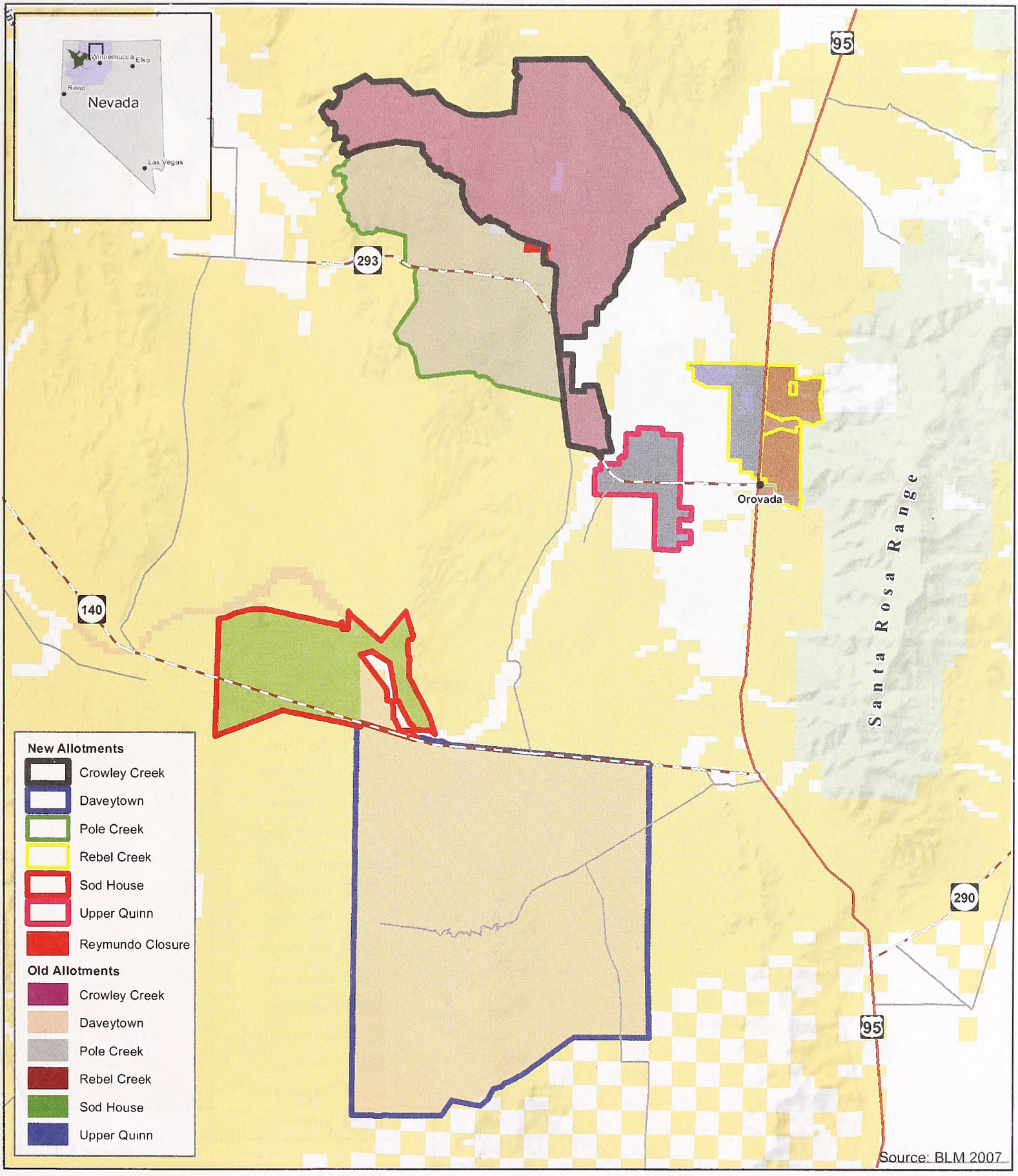
Legend

- Bureau of Indian Affairs
- Bureau of Land Management
- Forest Service
- Private
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

Winnemucca District RMP
Proposed Allotment Boundary Adjustments - Alternative B

Northwest Nevada

Figure 2-22



15186 1-04 - Oct 2012

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Winnemucca District RMP
Proposed Allotment Boundary Adjustments - Alternative C (Option 1)

N W E S

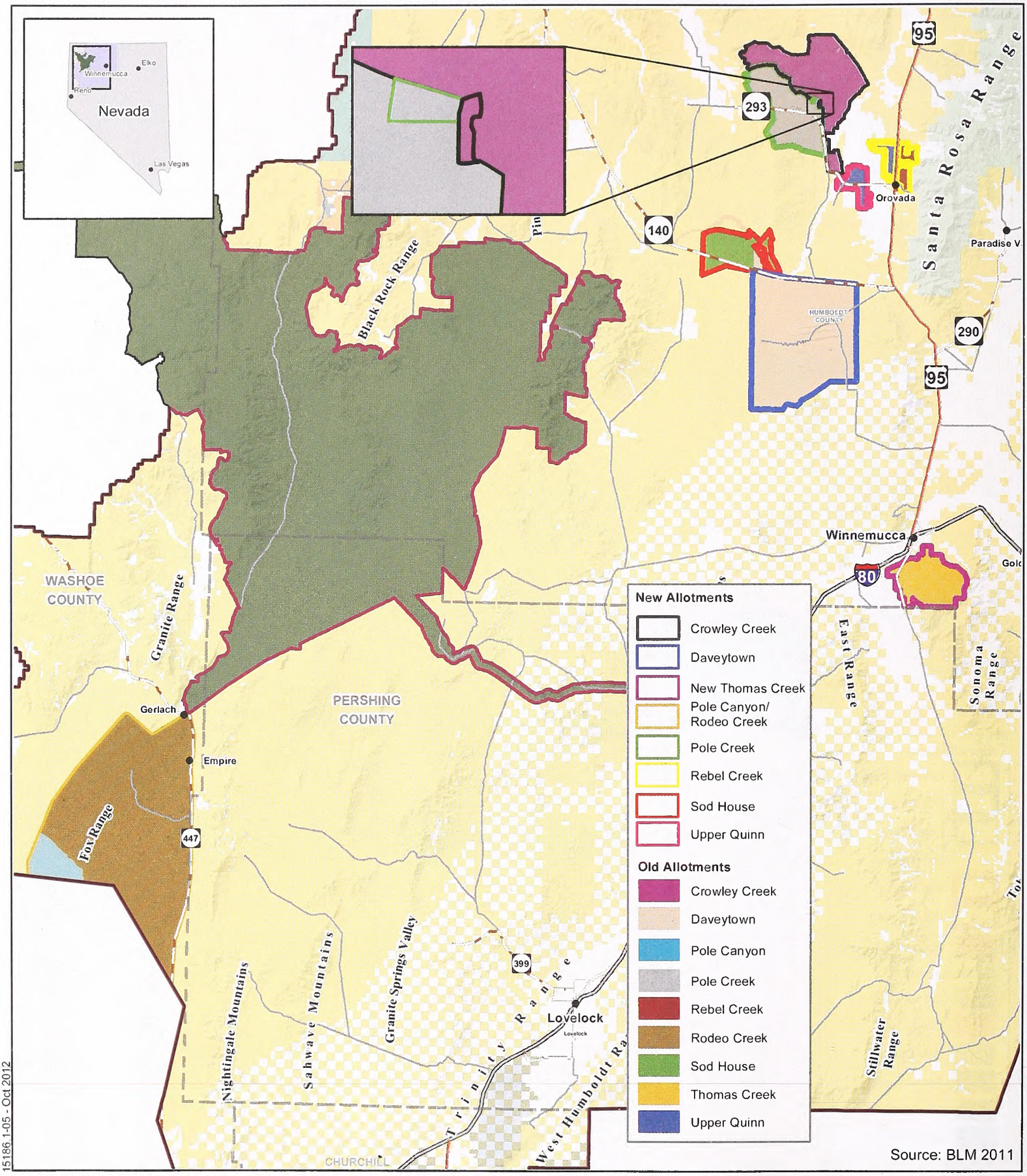
0 3 6 Miles

Legend

- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway
- Bureau of Indian Affairs
- Bureau of Land Management
- Forest Service
- Private

Northwest Nevada

Figure 2-23



15186 1-05 - Oct 2012

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Winnemucca District RMP
Proposed Allotment Boundary Adjustments - Alternative D

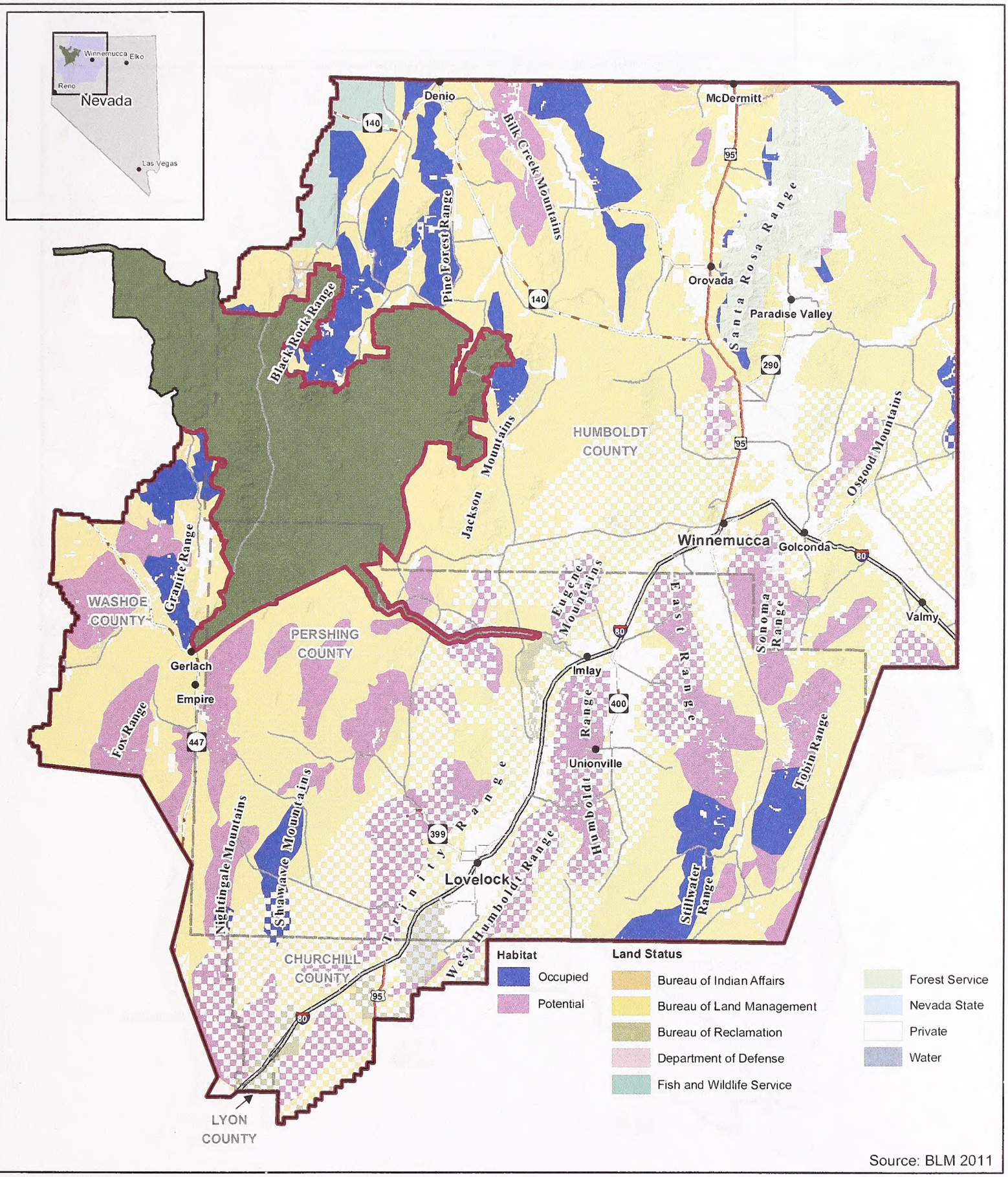
Legend

- Bureau of Indian Affairs
- Bureau of Land Management
- Forest Service
- Private
- Water
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 5 10 Miles

Northwest Nevada

Figure 2-24



Source: BLM 2011

15186 1-05 - Oct 2012

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Legend

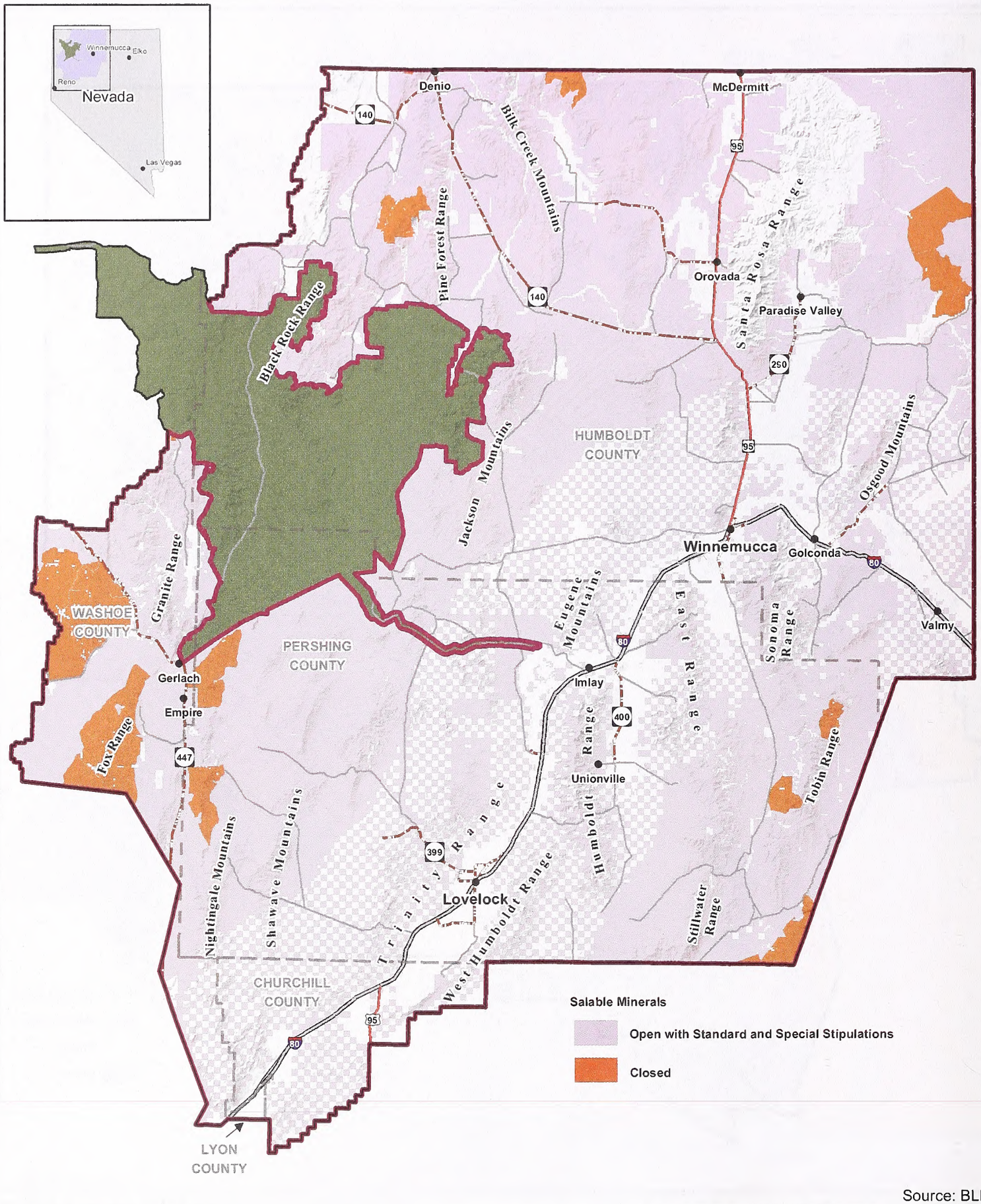
- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Winnemucca District RMP Bighorn Sheep Habitat - Alternatives C (Options 1 and 2) & D

Northwest Nevada

Figure 2-25



Source: BLM 2011

15186 1-05 - Oct 2012

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Winnemucca District RMP
Availability of Areas under the Salable Mineral Law - Alternative A

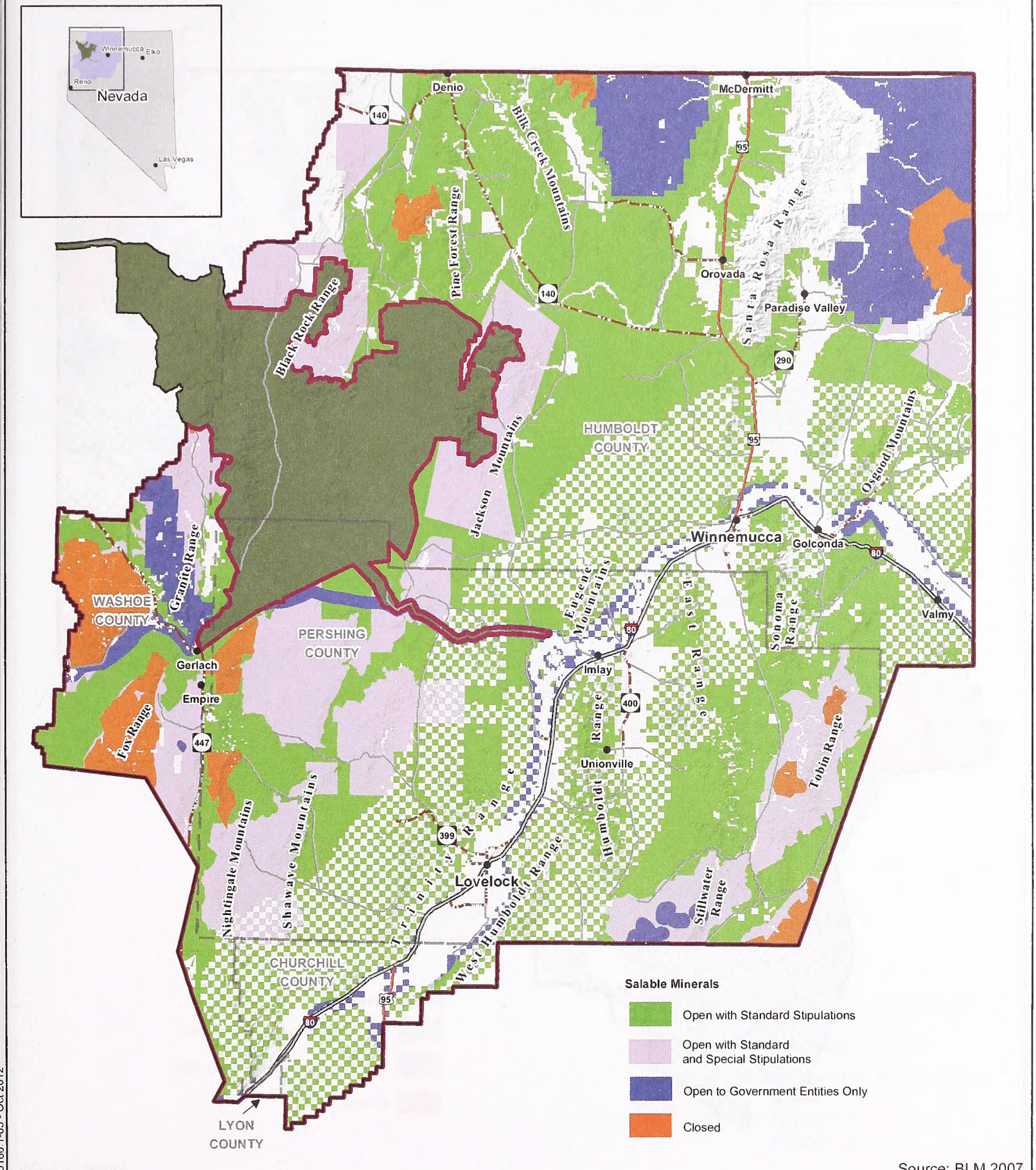
Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Northwest Nevada

Figure 2-26



Source: BLM 2007

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Winnemucca District RMP
Availability of Areas under the Salable Mineral Law - Alternative B

Legend

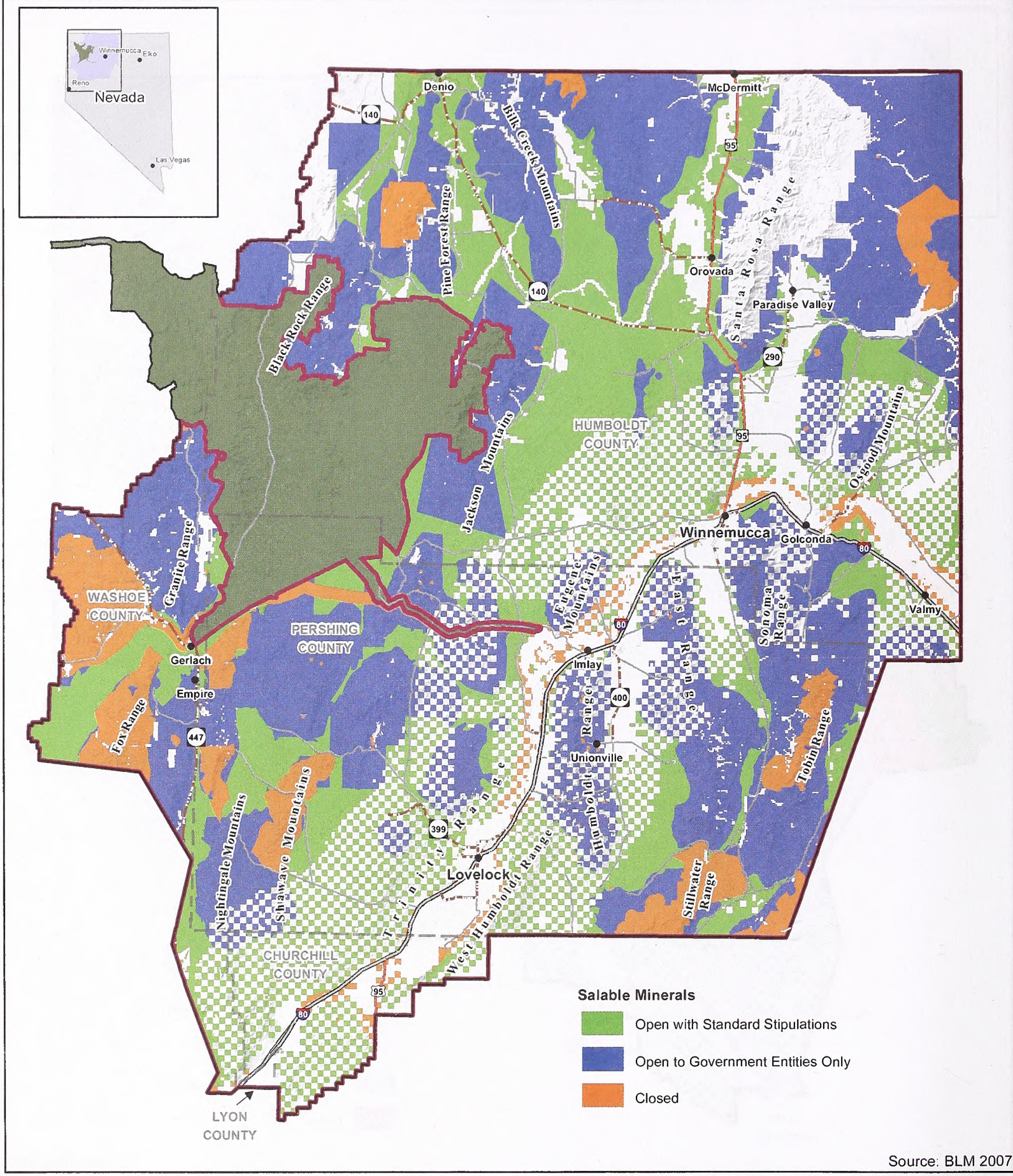
- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Northwest Nevada

Figure 2-27

T5160 1-03 - Oct 2012



Source: BLM 2007

15186.1-05 - Oct 2012

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Winnemucca District RMP

Availability of Areas under the Salable Mineral Law - Alternative C (Options 1 and 2)

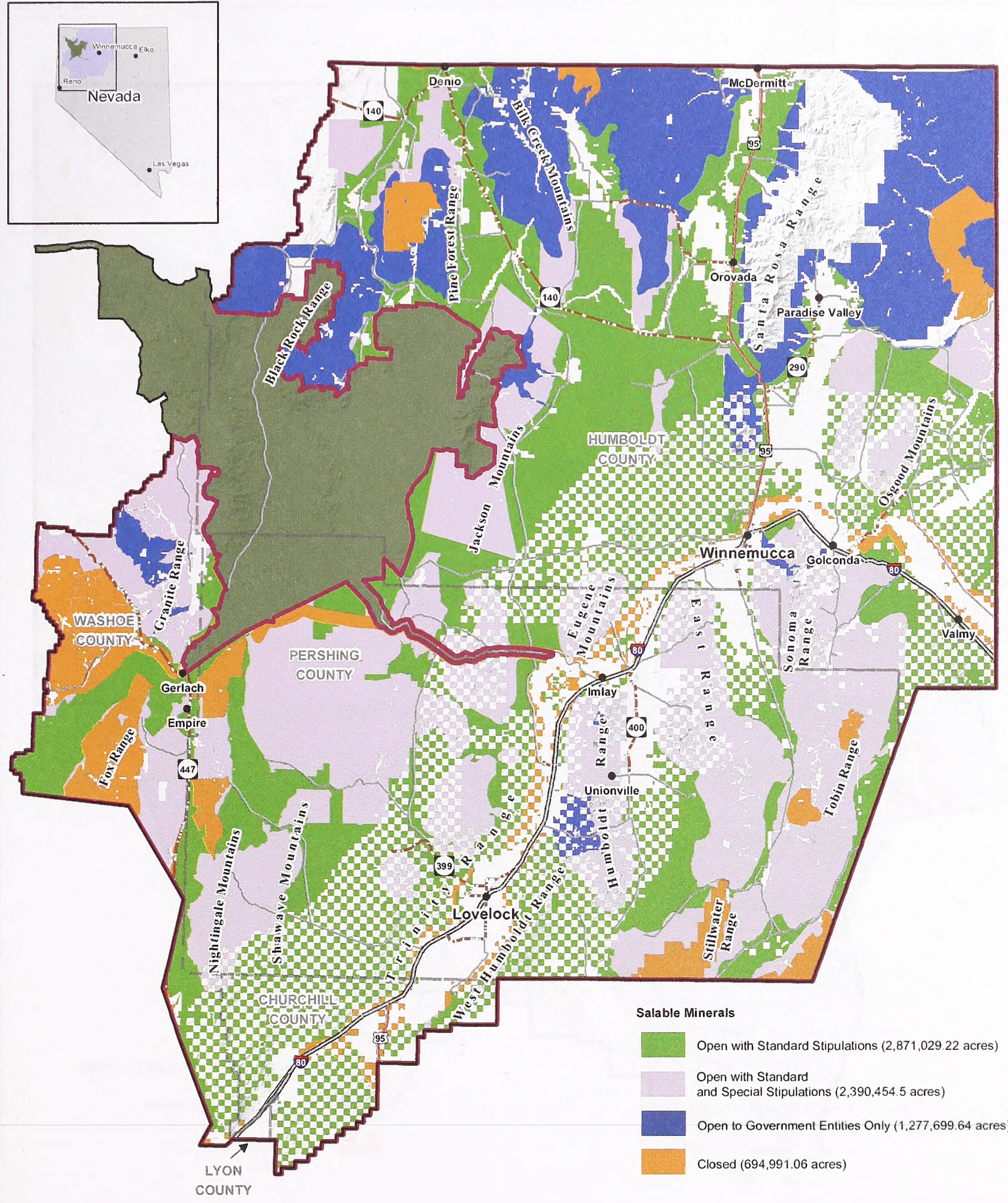
Northwest Nevada

Figure 2-28

Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles



Source: BLM 2012

15186.1-05 - Oct 2012

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Winnemucca District RMP
Availability of Areas under the Salable Mineral Law - Alternative D

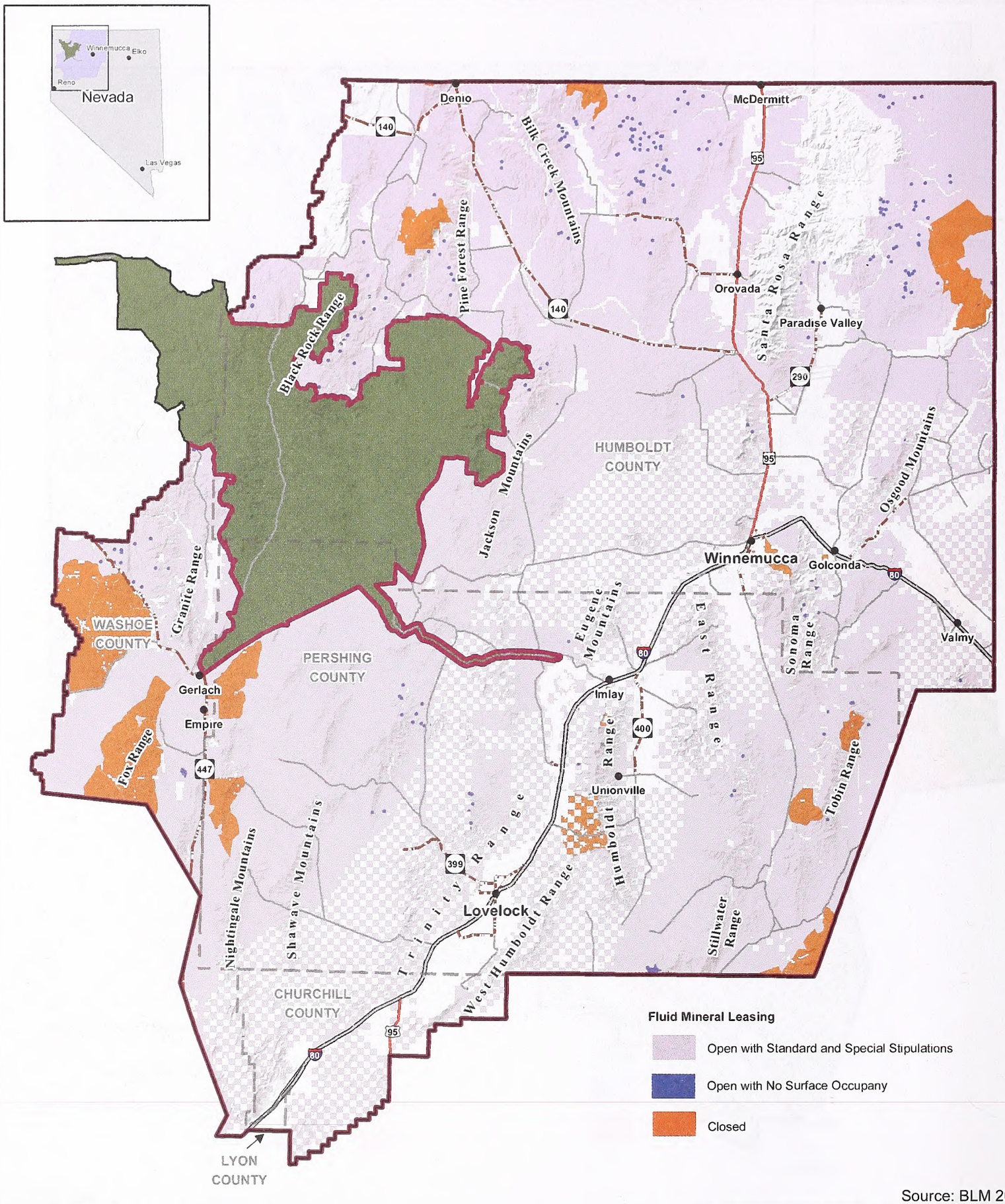
Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Northwest Nevada

Figure 2-29



Source: BLM 2011

15186 1-05 - Oct 2012

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Winnemucca District RMP
Availability of Areas under the Fluid Mineral Leasing Laws - Alternative A

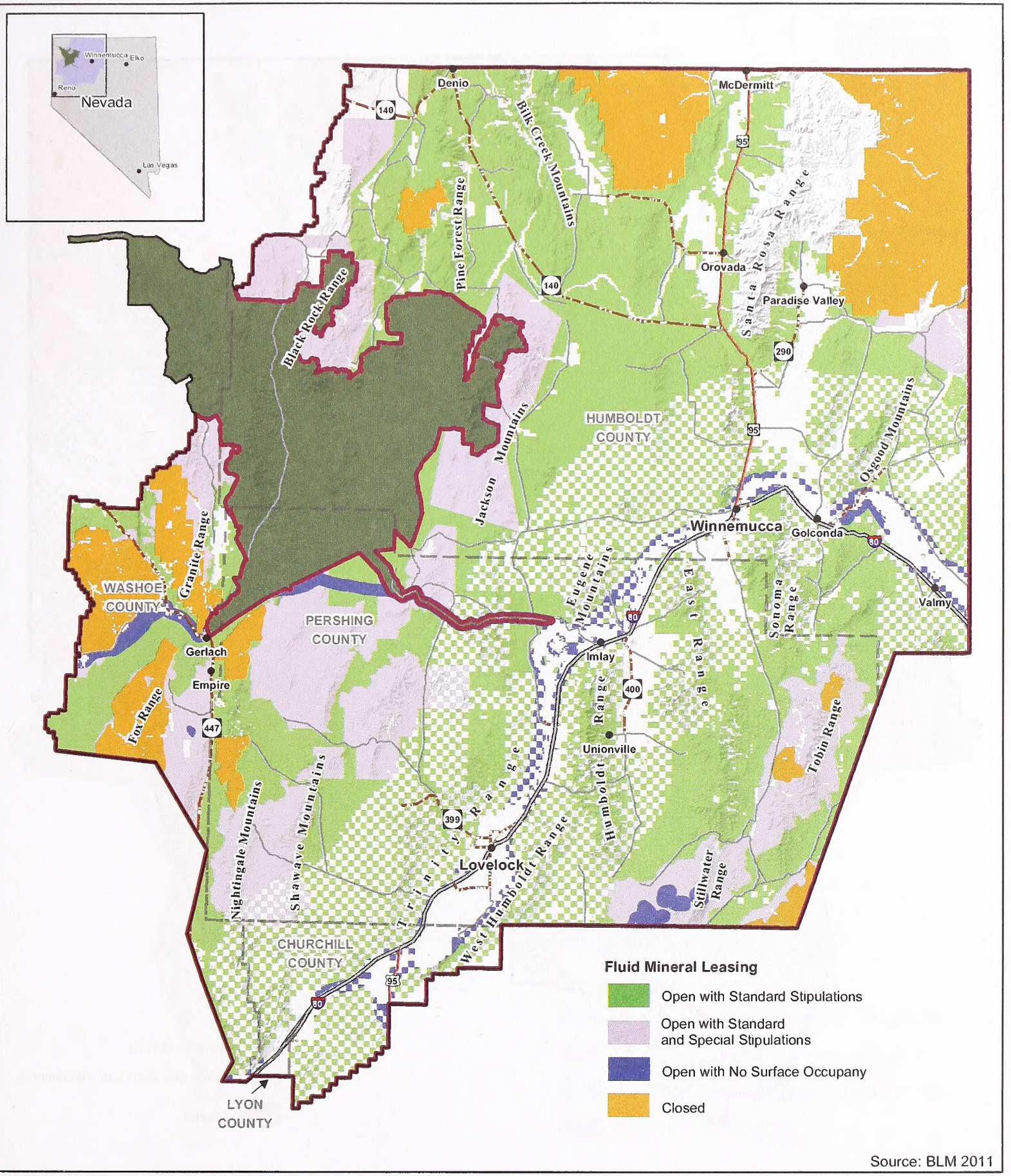
Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Northwest Nevada

Figure 2-30



Source: BLM 2011

15186 1-05 - Oct 2012

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Winnemucca District RMP

Availability of Areas under the Fluid Mineral Leasing Laws - Alternative B

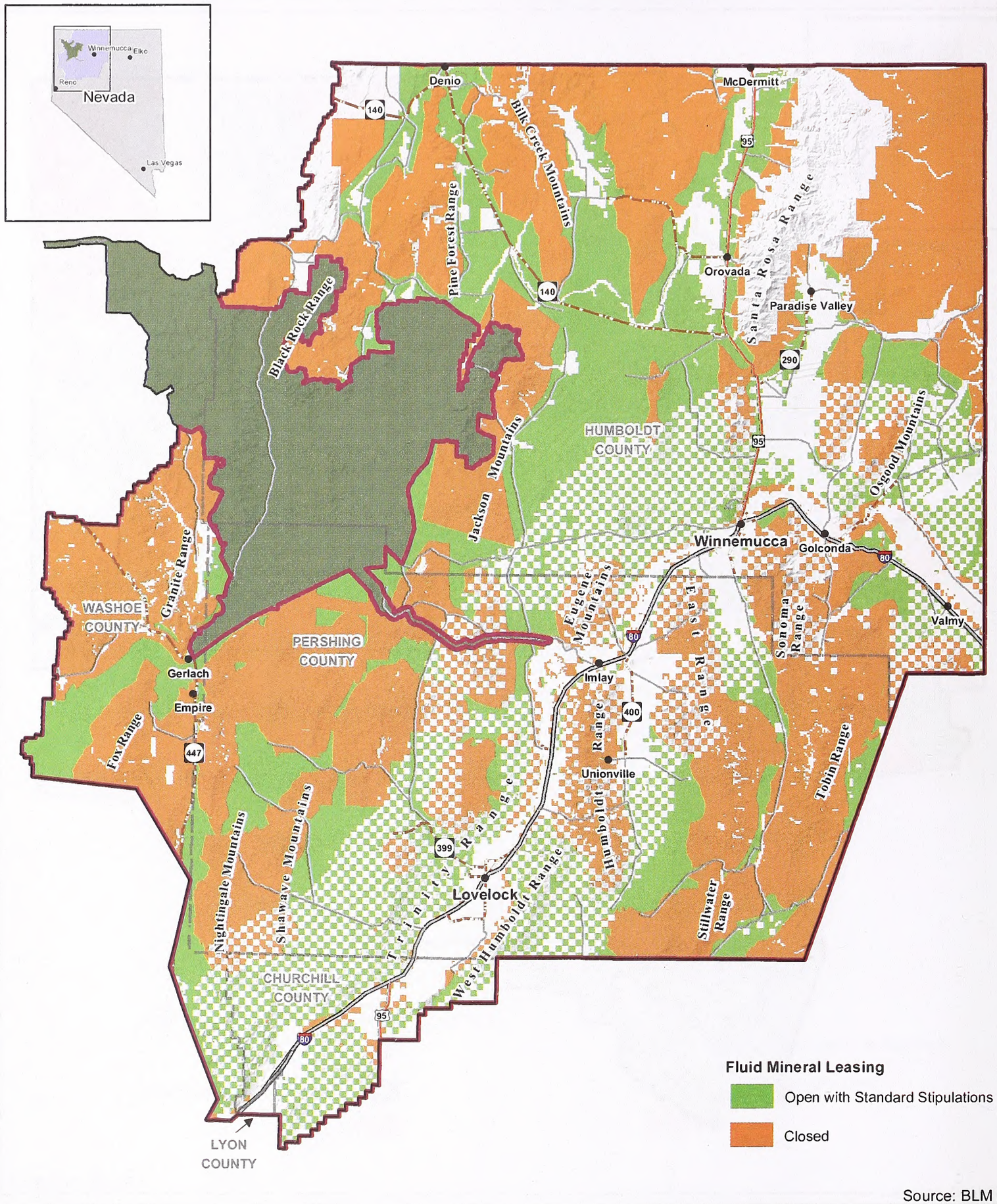
Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Northwest Nevada

Figure 2-31



Source: BLM 2011

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Winnemucca District RMP
Availability of Areas under the Fluid Mineral Leasing Laws - Alternative C (Options 1 and 2)

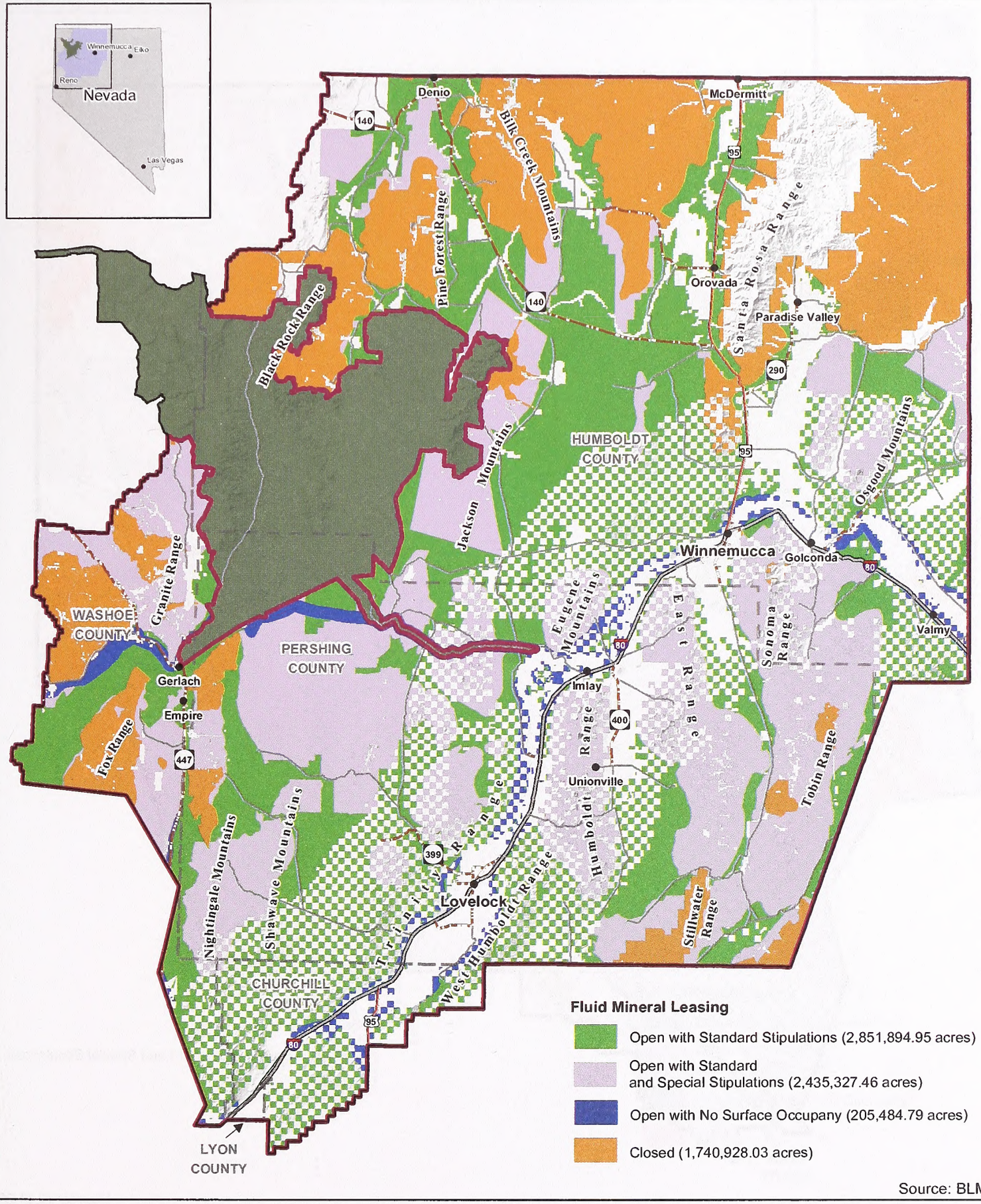
Northwest Nevada

Figure 2-32

Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles



Source: BLM 2012

15186.1-05 - Oct 2012

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Winnemucca District RMP

Availability of Areas under the Fluid Mineral Leasing Laws - Alternative D

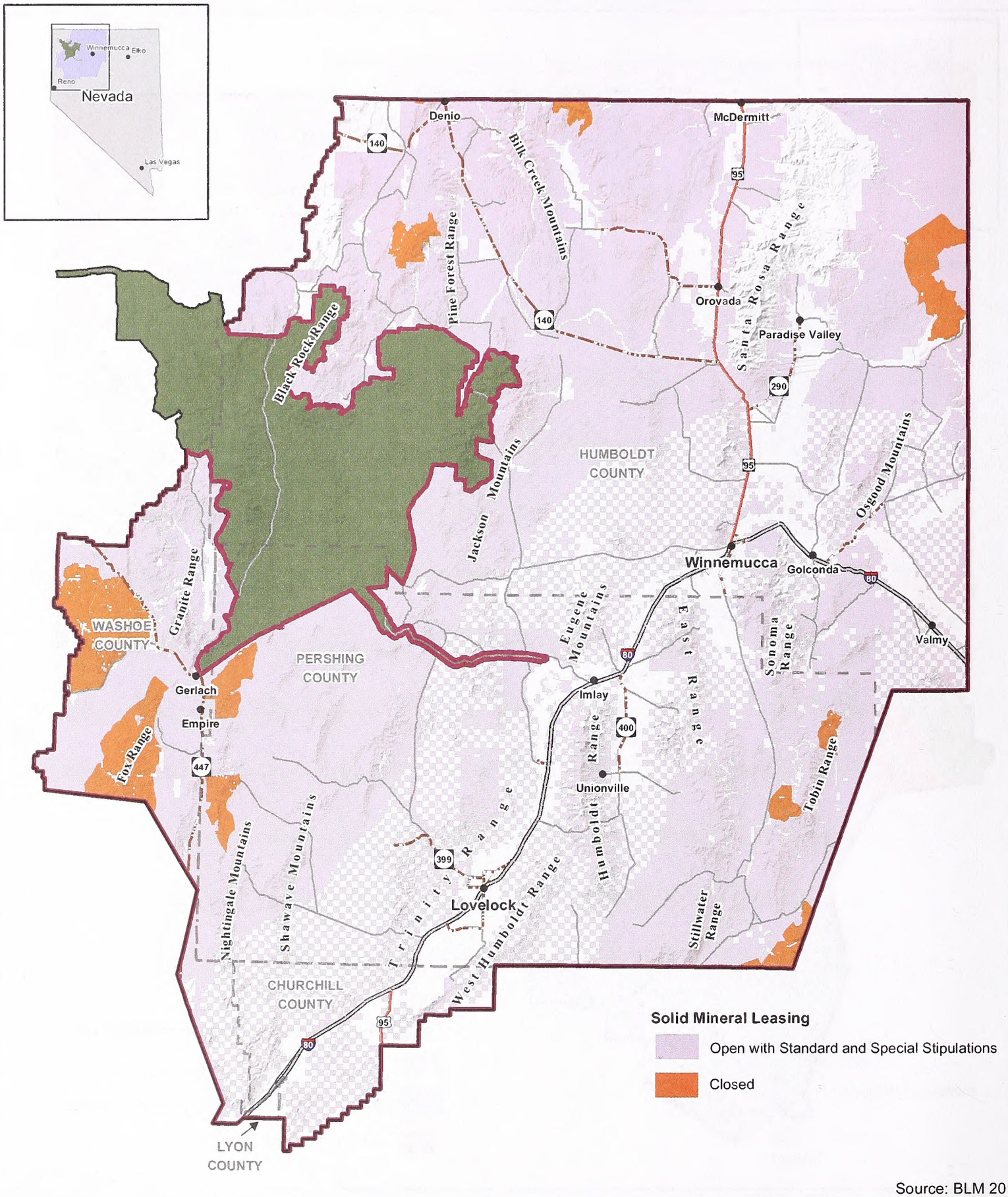
Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Northwest Nevada

Figure 2-33



Source: BLM 2011

15186.1-05 - Oct 2012

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Winnemucca District RMP
Availability of Areas under the Solid Mineral Leasing Laws - Alternative A

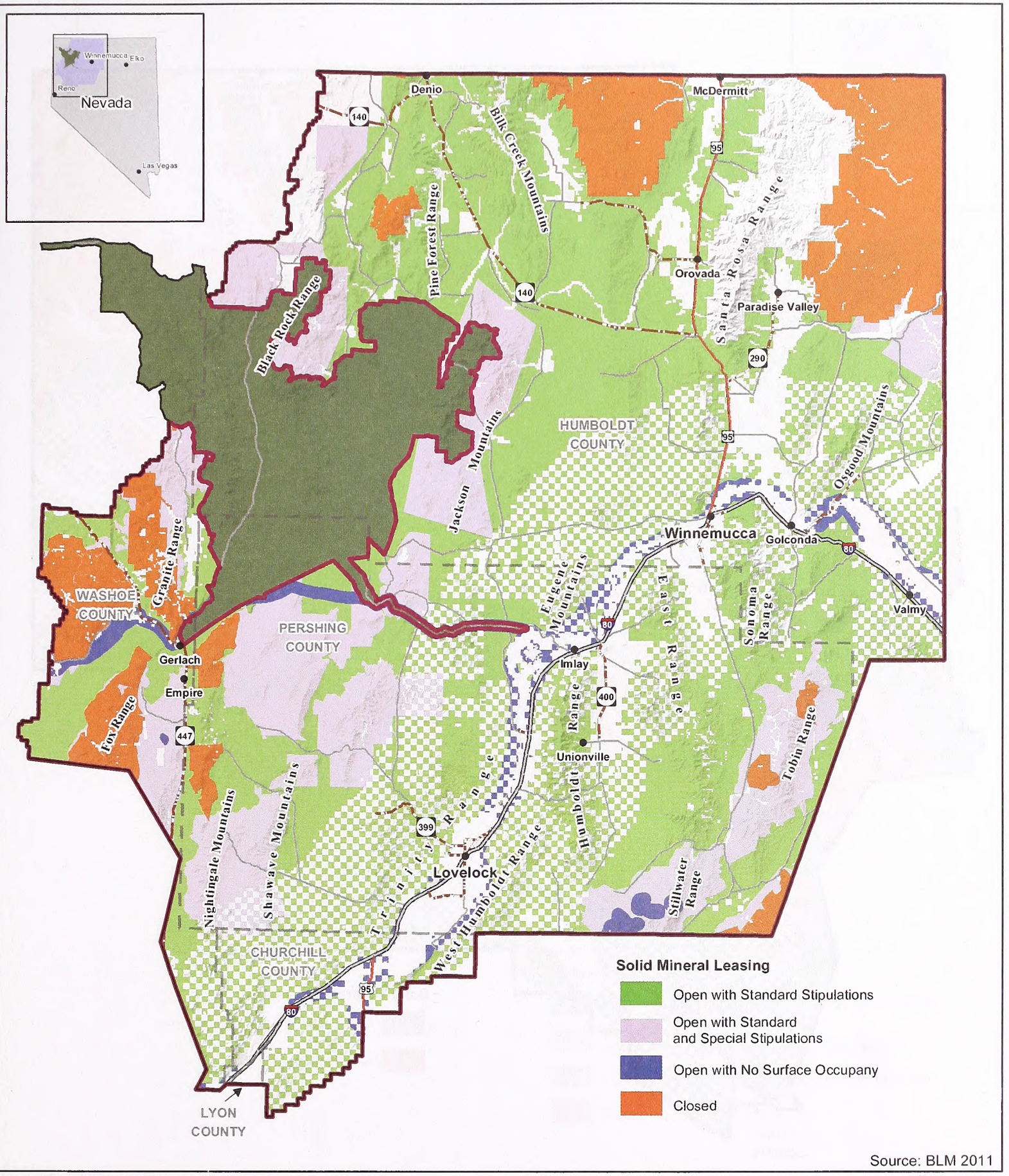
Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Northwest Nevada

Figure 2-34



Source: BLM 2011

15186 1-05 - Oct 2012

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Winnemucca District RMP

Availability of Areas under the Solid Mineral Leasing Laws - Alternative B

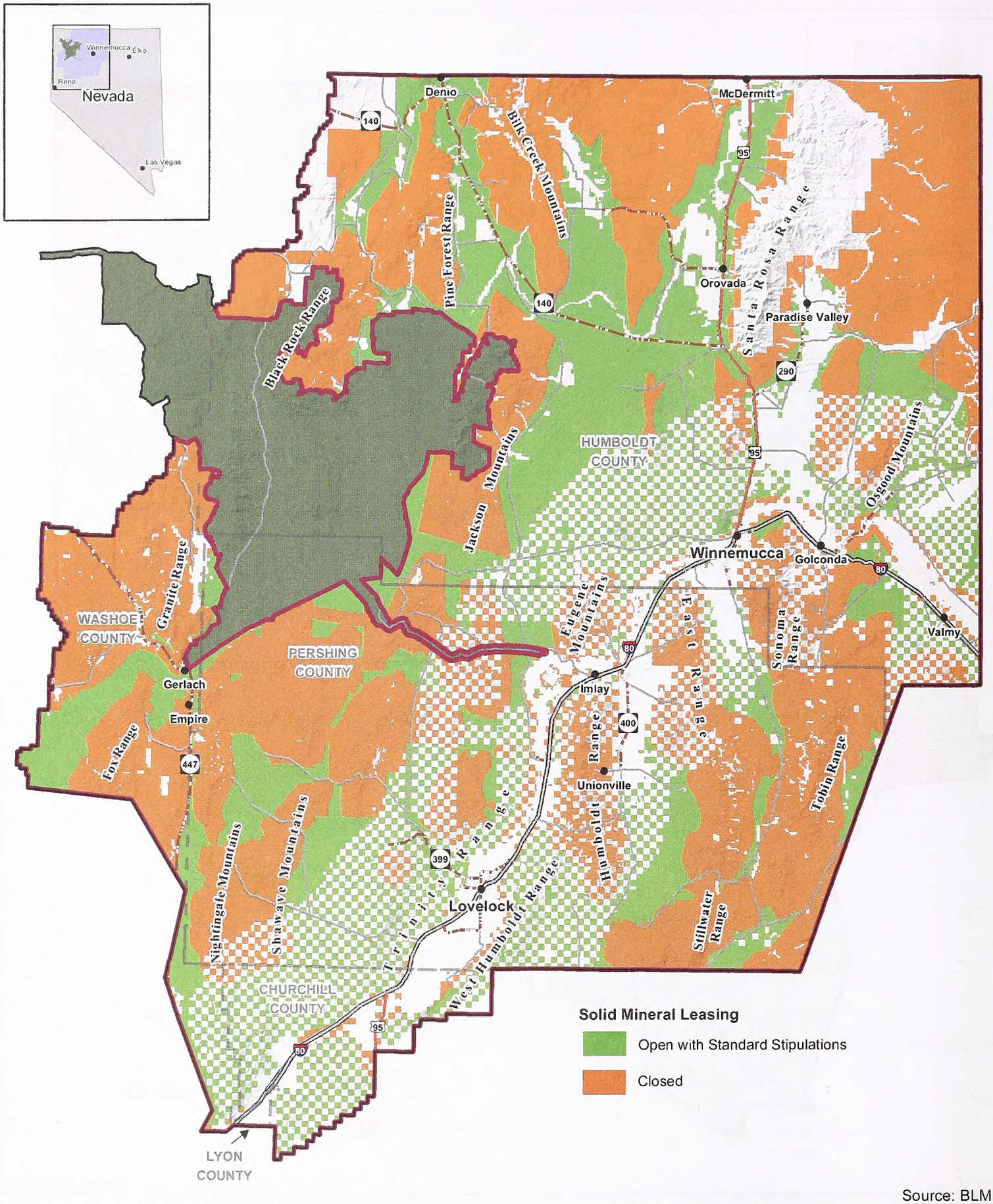
Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Northwest Nevada

Figure 2-35



Source: BLM 2011

15186.1-05 - Oct 2012

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Winnemucca District RMP
Availability of Areas under the Solid Mineral Leasing Laws - Alternative C (Options 1 and 2)

Northwest Nevada

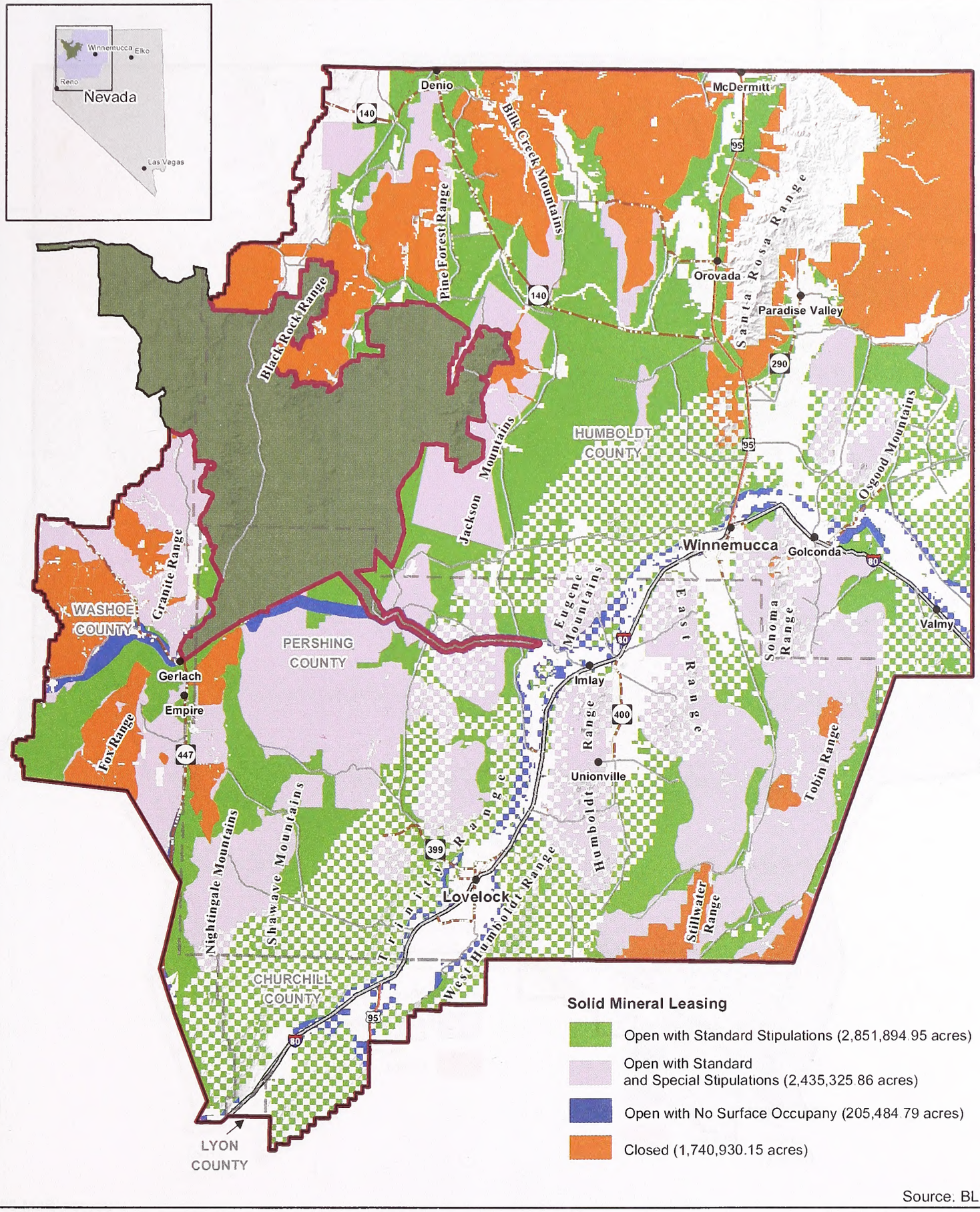
Figure 2-36

Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

N W E S

0 10 20 Miles



Source: BLM 2012

15186.1-05 - Oct 2012

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Winnemucca District RMP

Availability of Areas under the Solid Mineral Leasing Laws - Alternative D

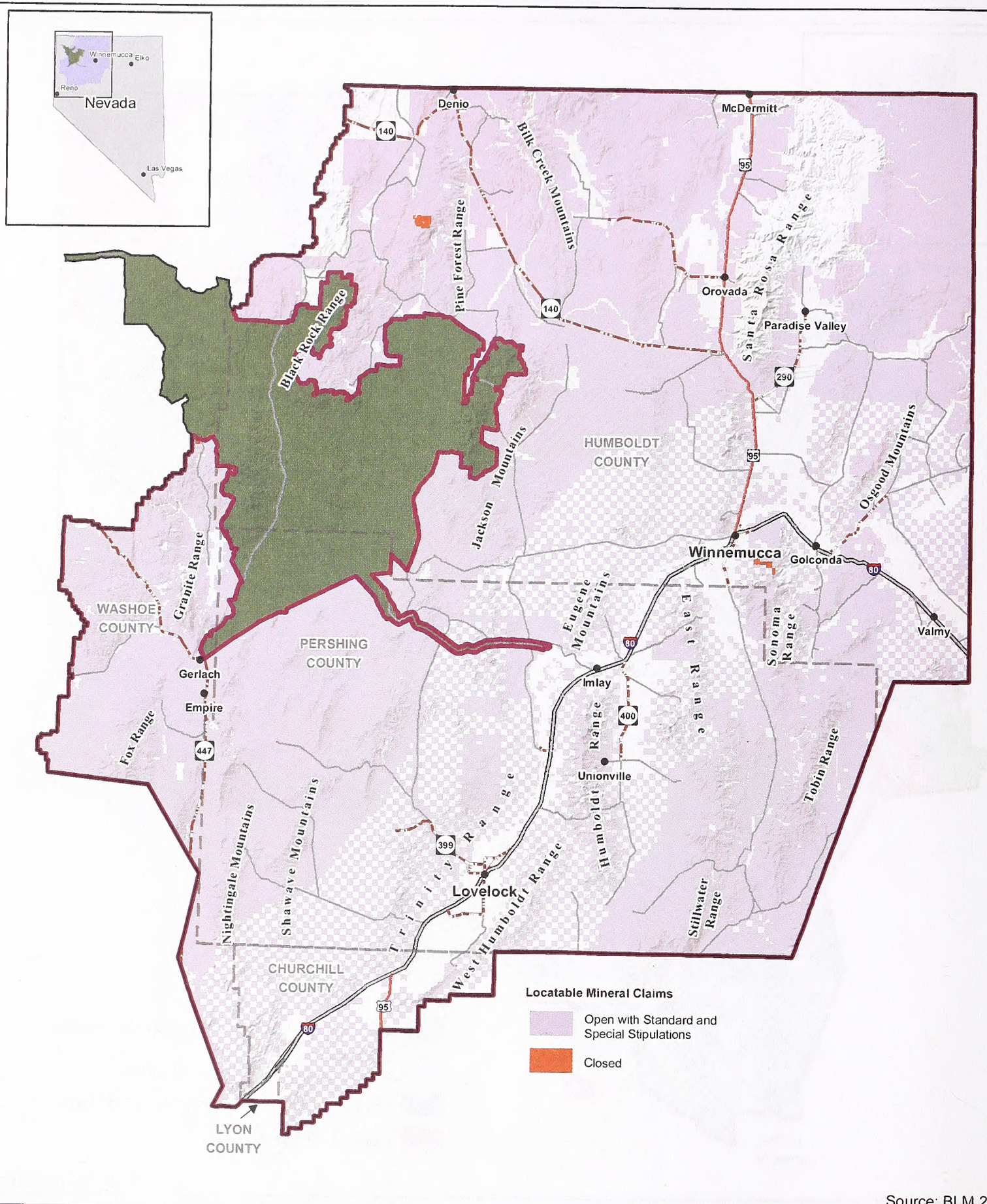
Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Northwest Nevada

Figure 2-37



15186 1-05 - Oct 2012

Source: BLM 2011

No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.

Winnemucca District RMP
Availability of Areas under the General Mining Law of 1872 - Alternative A

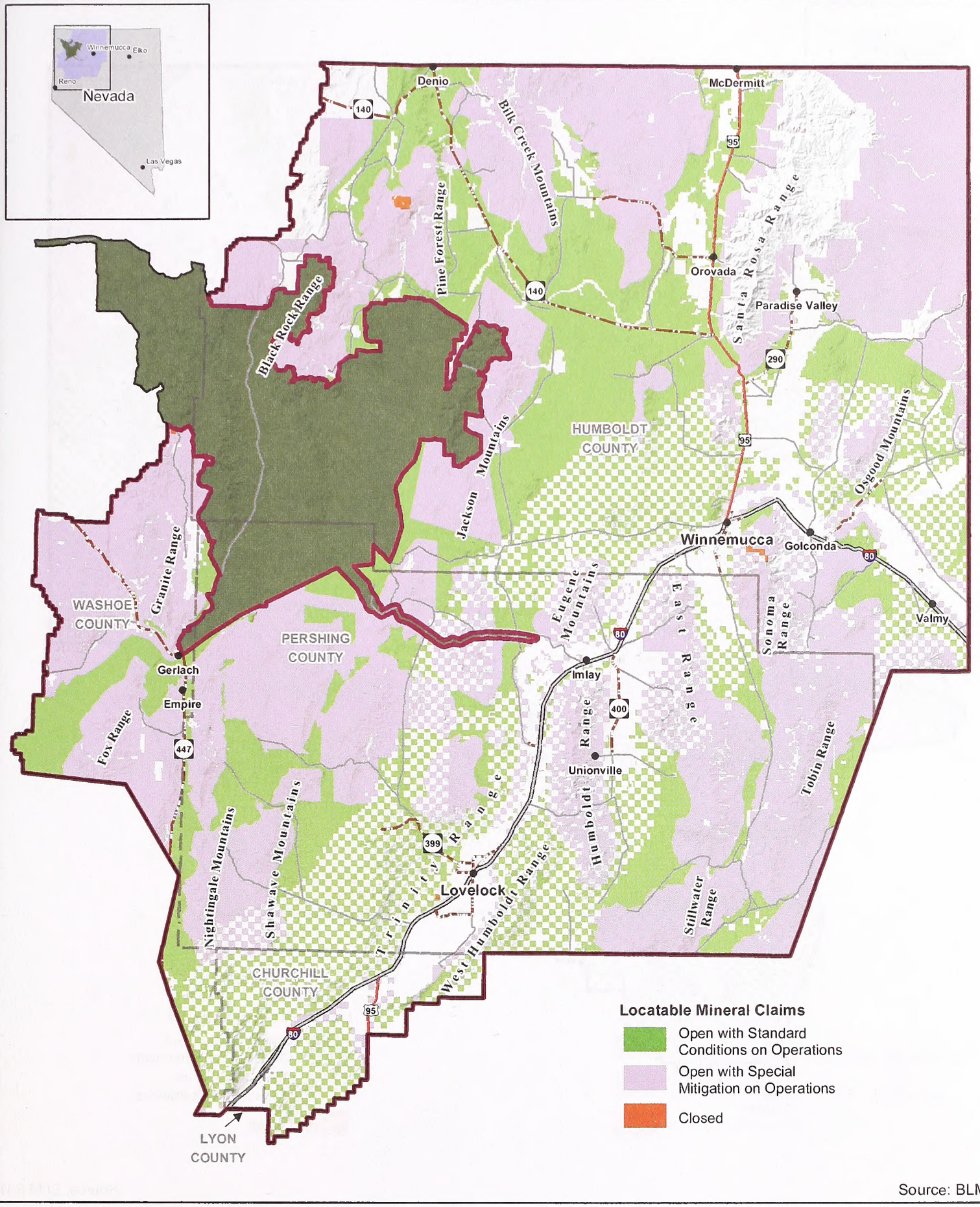
Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Northwest Nevada

Figure 2-38



Source: BLM 2012

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Winnemucca District RMP
Availability of Areas under the General Mining Law of 1872 - Alternative B

Northwest Nevada

Figure 2-39

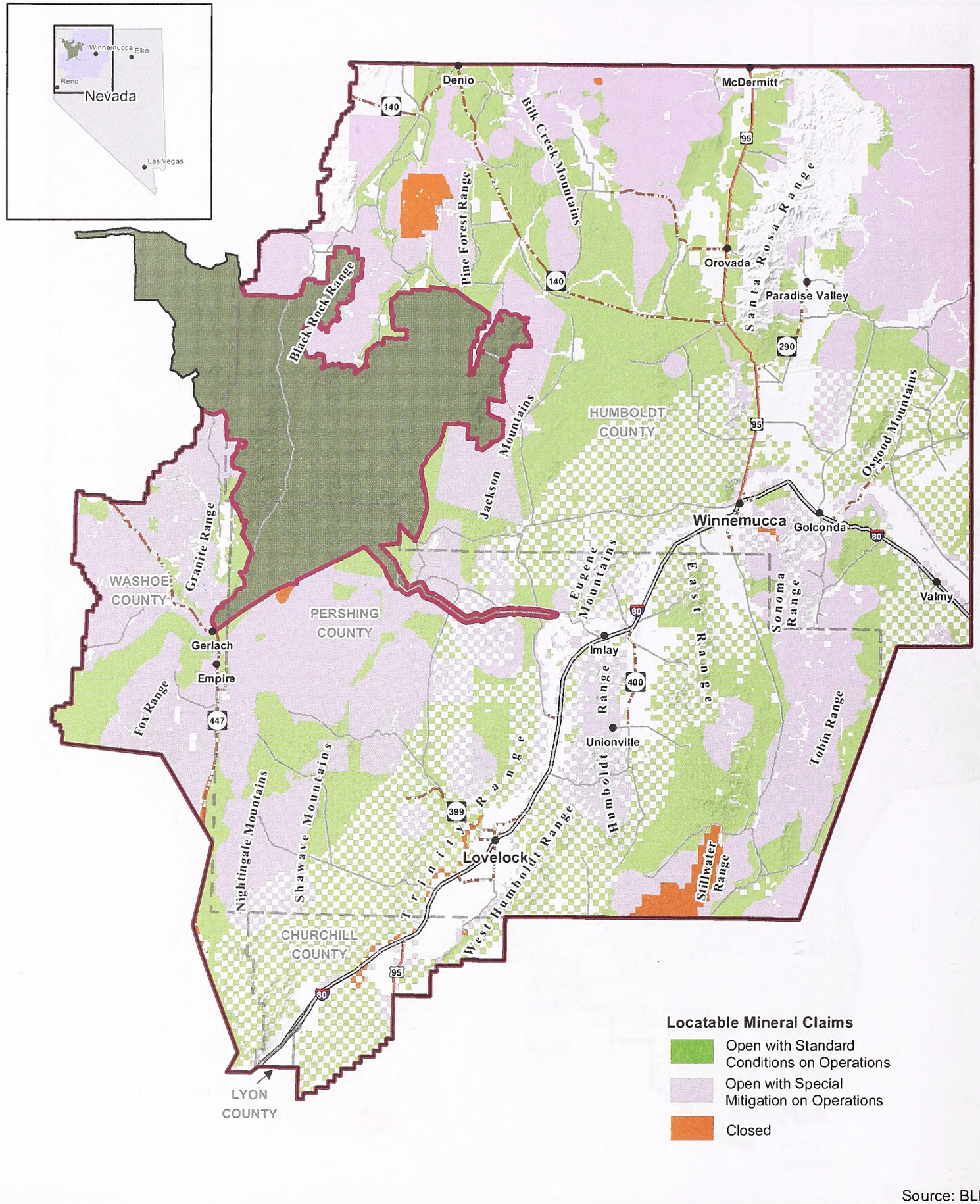
Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

N W E S

0 10 20 Miles

15166 1-03 - Oct 2012



Source: BLM 2012

15186.1-05 - Oct 2012

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Winnemucca District RMP
Availability of Areas under the General Mining Law of 1872 - Alternative C (Options 1 and 2)

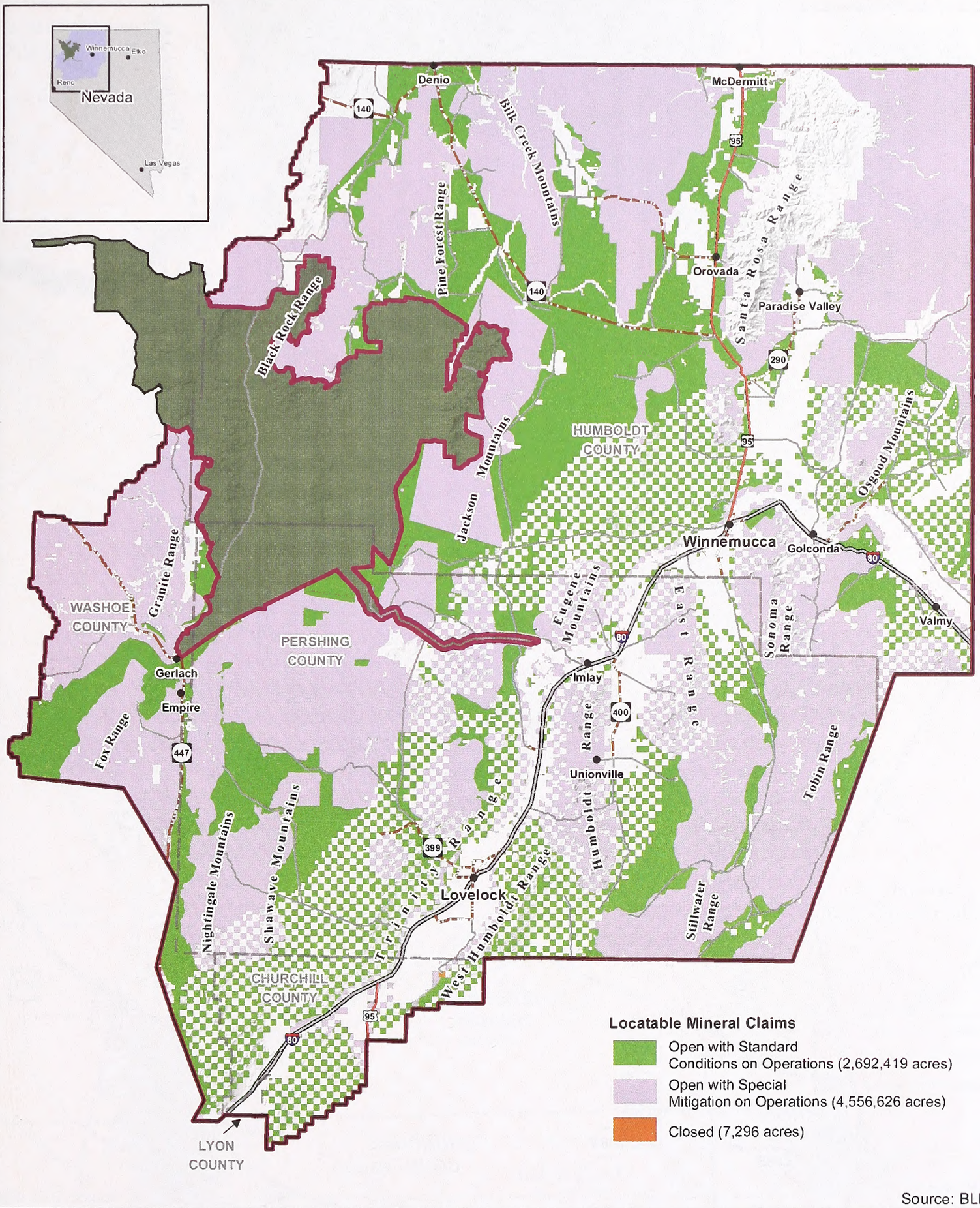
Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Northwest Nevada

Figure 2-40



Source: BLM 2012

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Winnemucca District RMP
Availability of Areas under the General Mining Law of 1872 - Alternative D

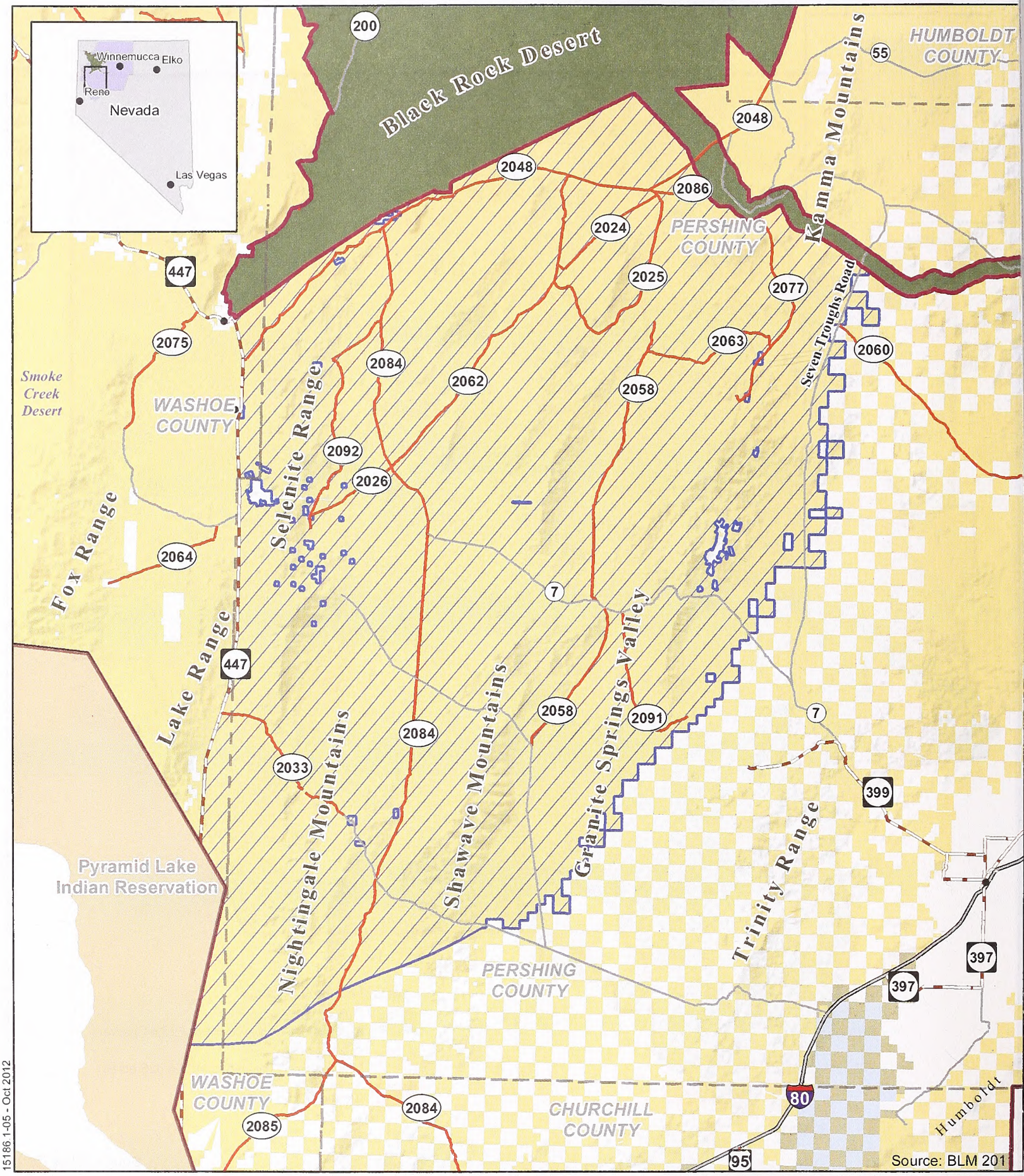
Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Northwest Nevada

Figure 2-41



15186 1-05 - Oct 2012

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Recreation Designations - Nightingale SRMA - Alternatives B & D

Legend

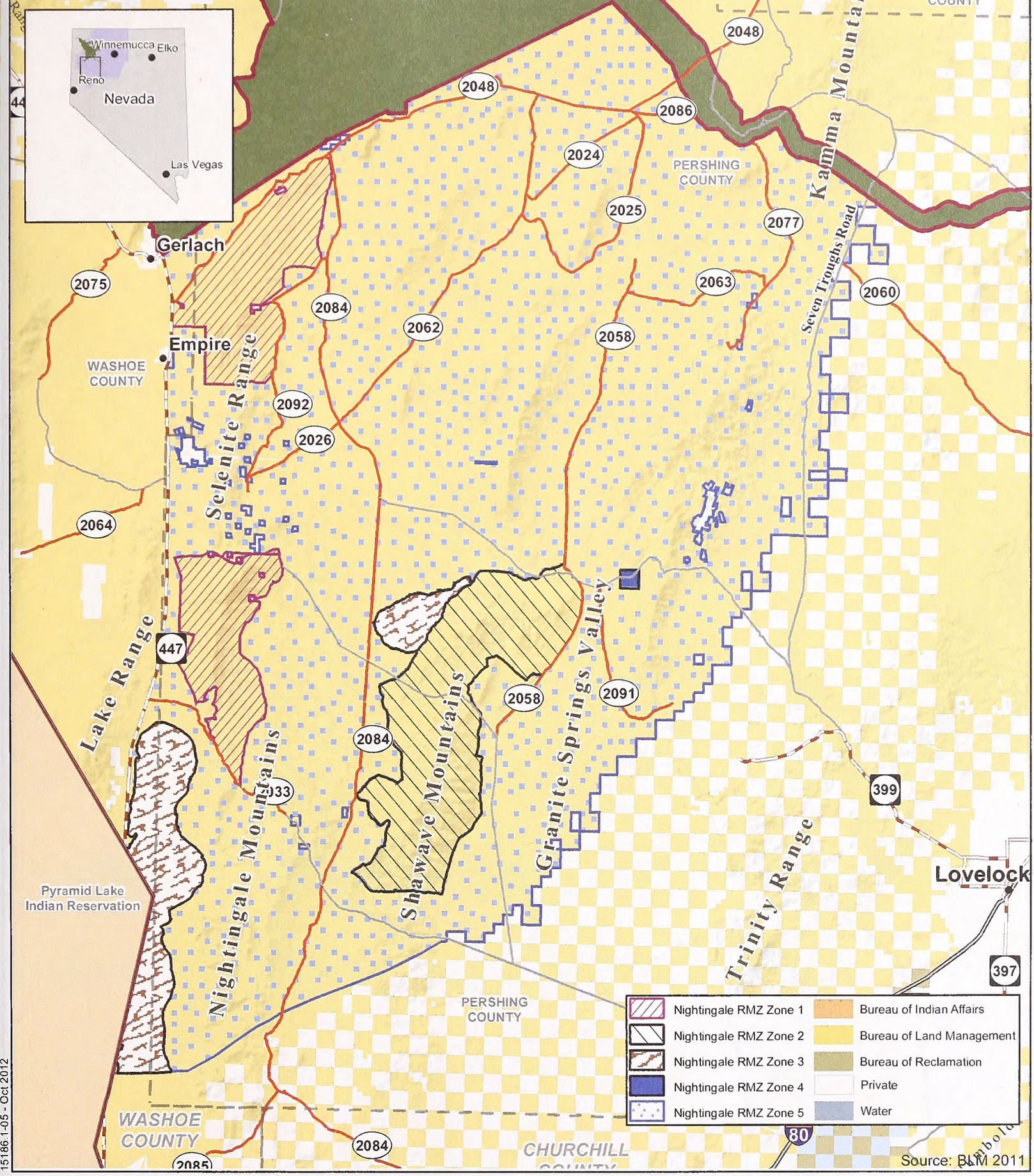
- Nightingale SRMA
- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Bureau of Indian Affairs
- Bureau of Land Management
- Bureau of Reclamation
- Private
- Water
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway
- BLM Road

N W E S

0 5 Miles

Northwest Nevada

Figure 2-42



15186 1-05 - Oct 2012

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Nightingale SRMA - Recreation Management Zones (RMZs) - Alternatives B & D

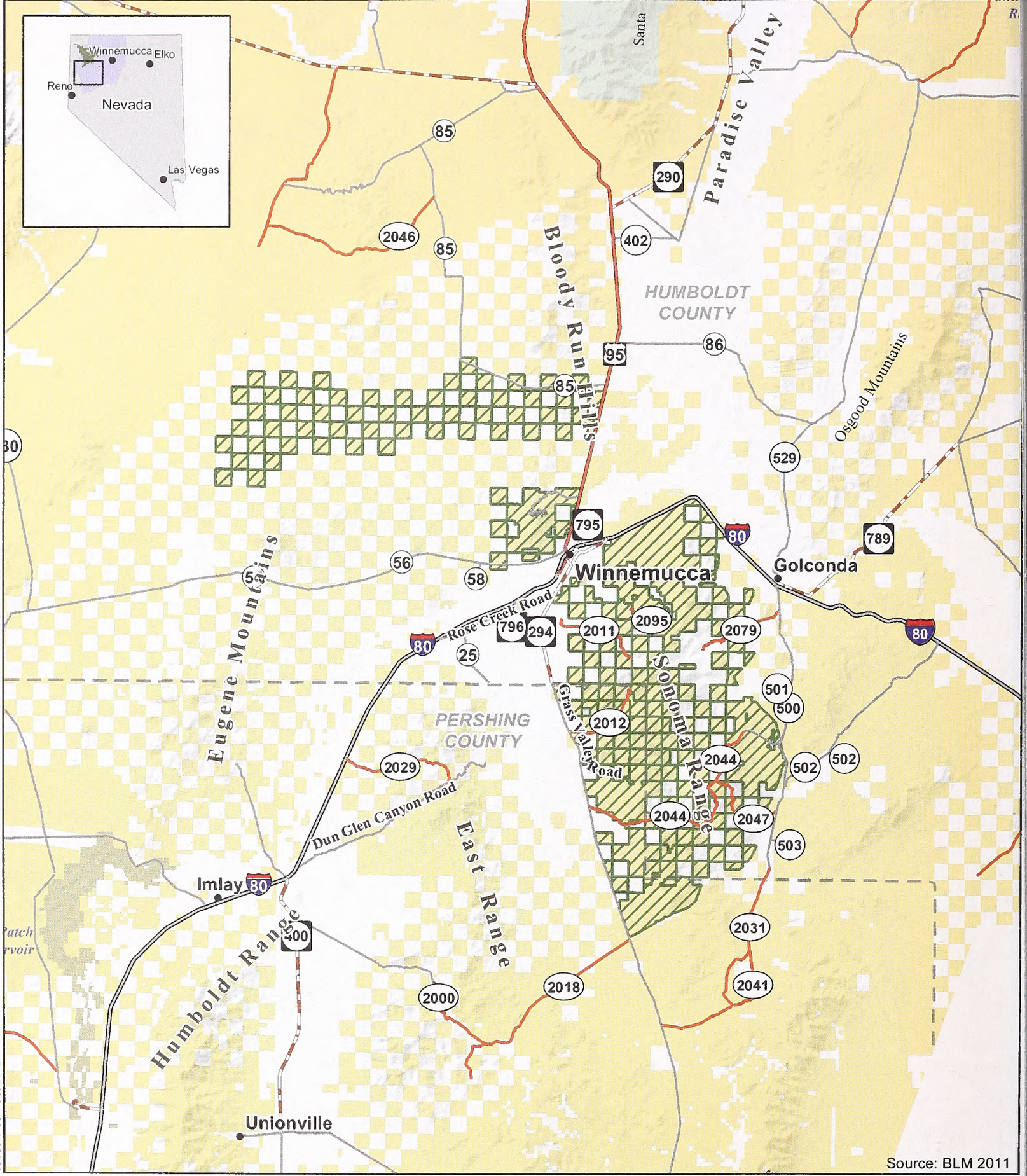
Northwest Nevada

Figure 2-43

Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway
- BLM Road

0 3 6 Miles



Source: BLM 2011

15186 1-05 - Oct 2012

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N W E S

0 2 4 Miles

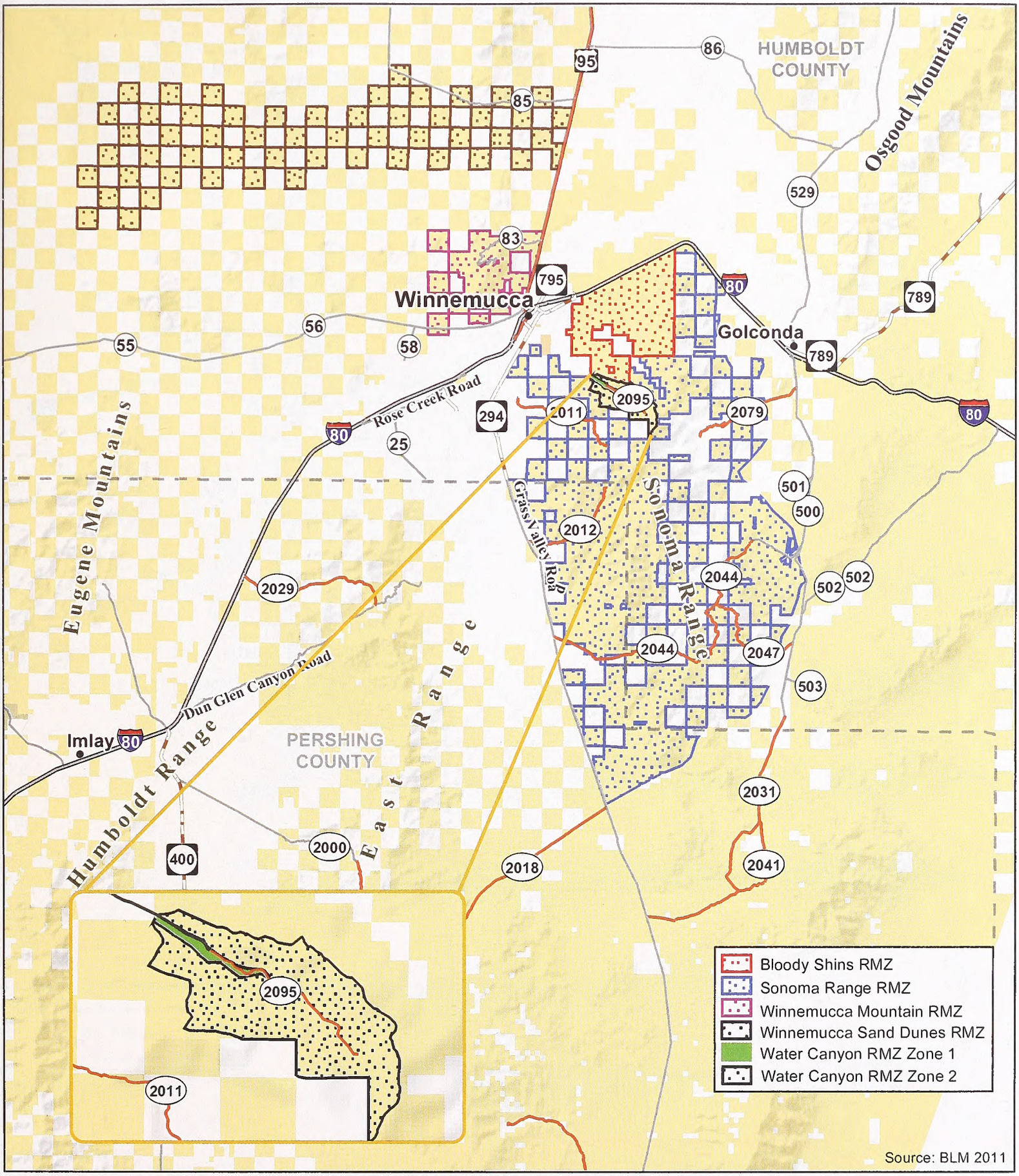
Legend

- Winnemucca SRMA
- County Boundary
- Bureau of Indian Affairs
- Bureau of Land Management
- Private
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway
- BLM Road

Winnemucca District RMP
Winnemucca SRMA - Alternatives B & D

Northwest Nevada

Figure 2-44



15186.1-05 - Oct 2012

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Winnemucca SRMA - Recreation Management Zones (RMZs) - Alternatives B & D

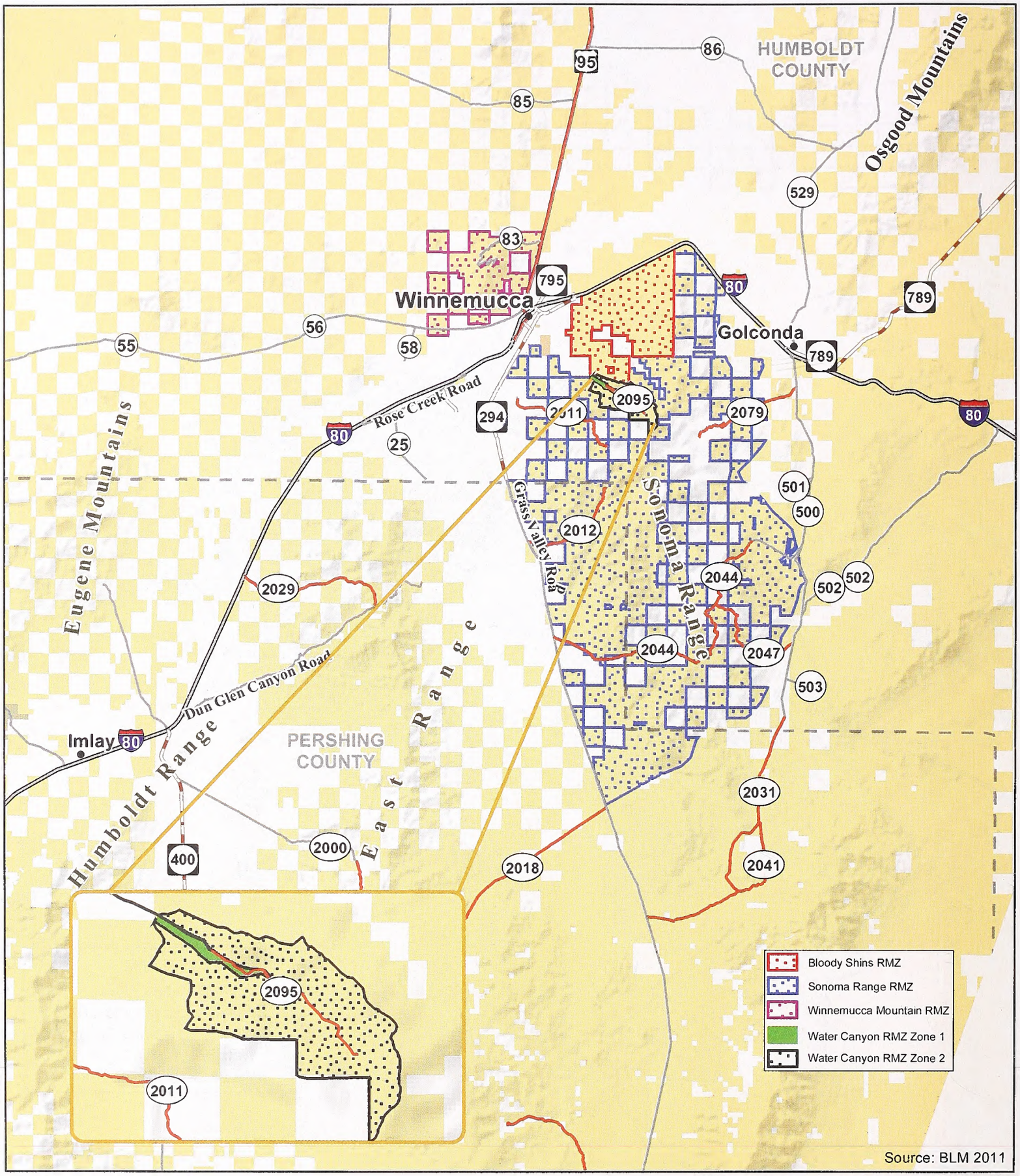
Legend

- Bureau of Indian Afairs
- Bureau of Land Management
- Private
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway
- BLM Road

0 2 4 Miles

Northwest Nevada

Figure 2-45



15186.1-05 - Oct 2012

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Winnemucca District RMP

Winnemucca SRMA - Recreation Management Zones (RMZs) - Alternative C (Options 1 and 2)

Legend

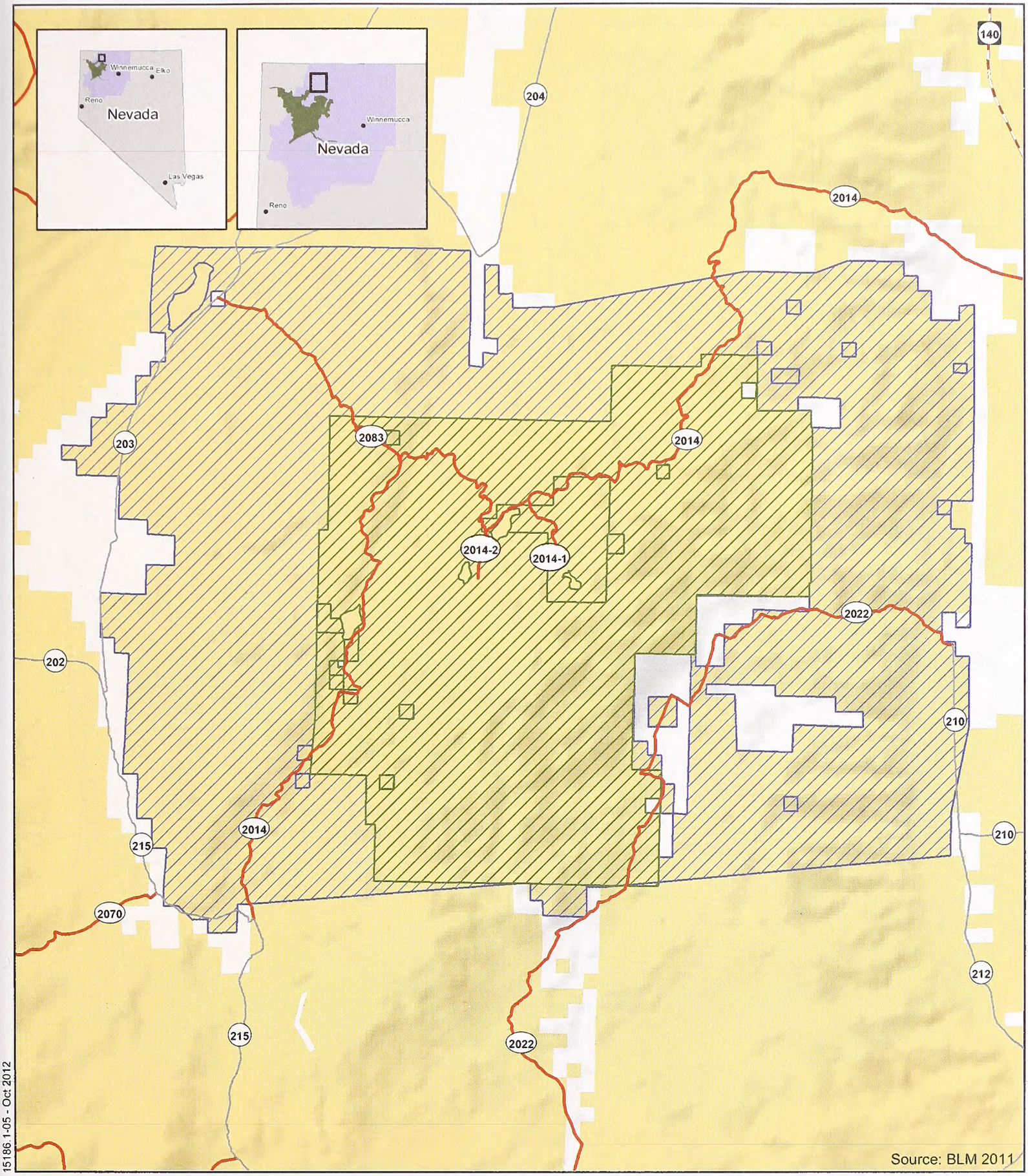
- Bureau of Indian Afairs
- Bureau of Land Management
- Private
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway
- City Road
- BLM Road

N W E S

0 2 4 Miles

Northwest Nevada

Figure 2-46



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N
W E
S

0 1 2 Miles

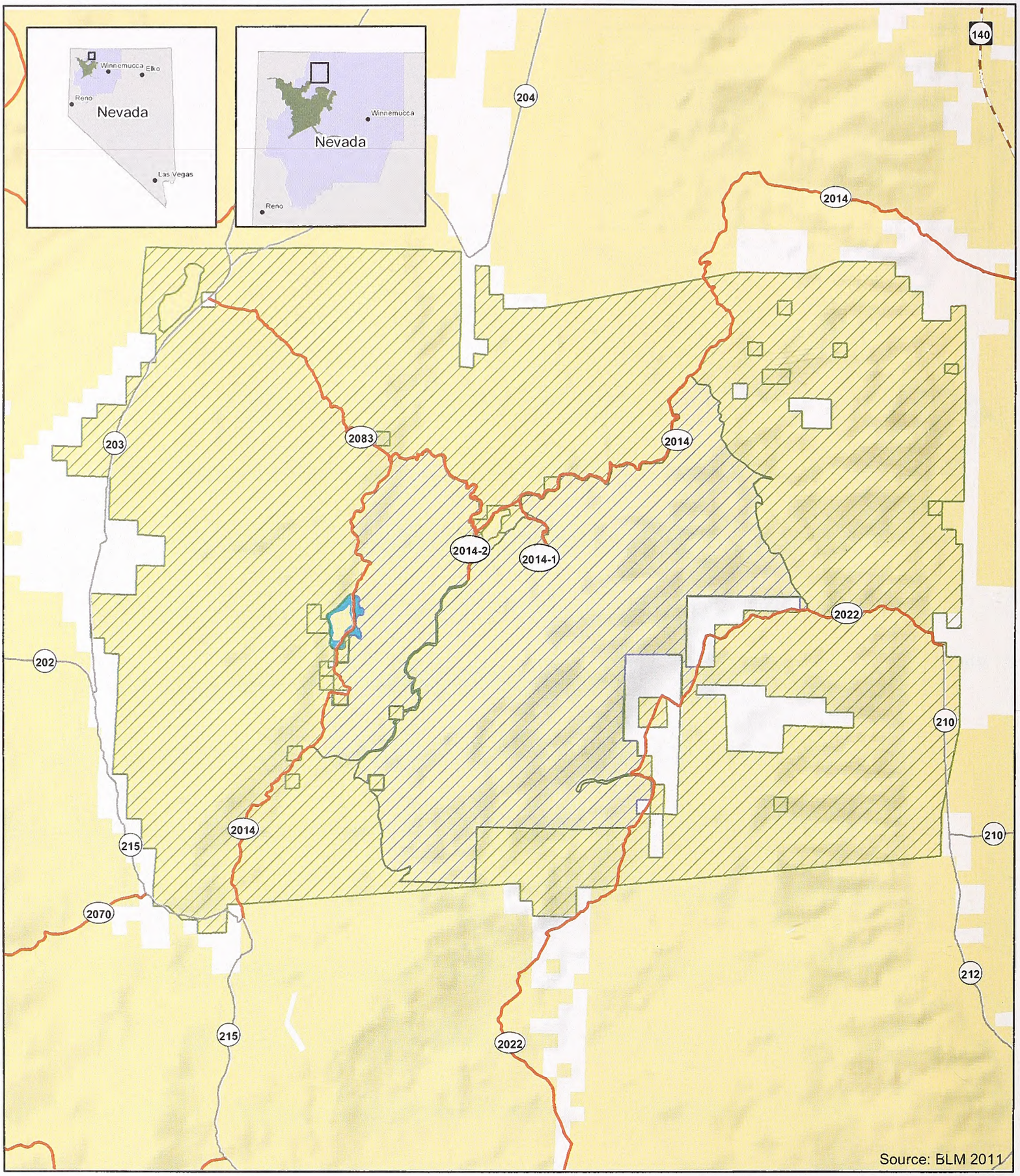
Legend

- Pine Forest Alternatives B, C & D
- Pine Forest Alternative A
- Bureau of Land Management
- Private
- BLM Road
- County Road
- State Highway

Winnemucca District RMP
Pine Forest SRMA

Northwest Nevada

Figure 2-47



15186.1-05 - Oct 2012

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N
W E
S

0 1 2 Miles

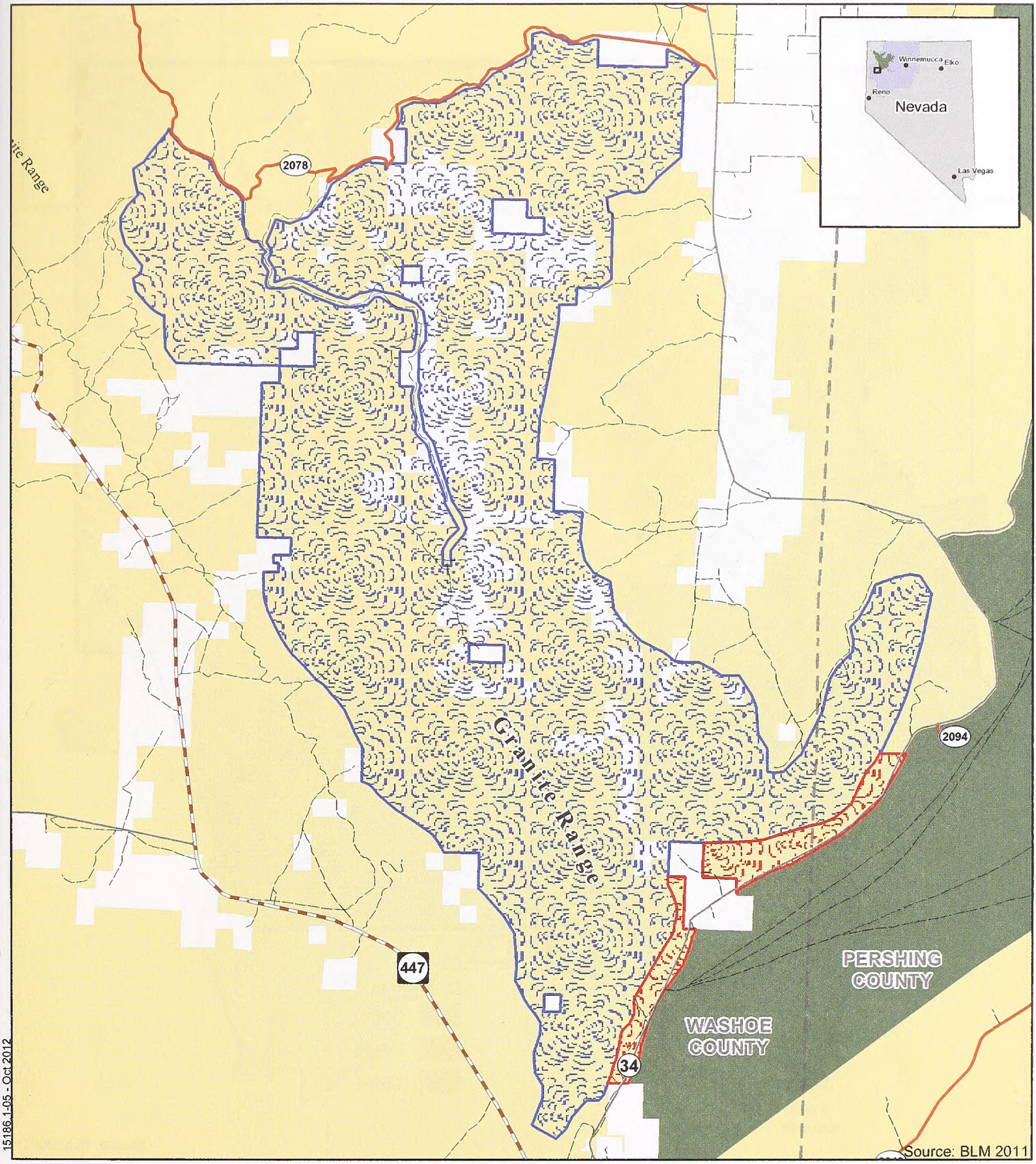
Legend

- Pine Forest Creeks RMZ
- Pine Forest Lakes RMZ
- Knott Creek Reservoir RMZ
- Bureau of Land Management
- Private
- BLM Road
- County Road
- State Highway

Pine Forest SRMA - Recreation Management Zones (RMZs) - Alternatives B-D

Northwest Nevada

Figure 2-48



15186_1-05 - Oct 2012

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Legend

- Zone 2 – Granite
- Zone 1 – Granite Foothills
- Black Rock/High Rock NCA RMP Planning Area Lands
- County Boundary
- 2011 BLM Road
- County Road
- Other Dirt Roads
- State Highway
- Bureau of Land Management
- Private
- Towns

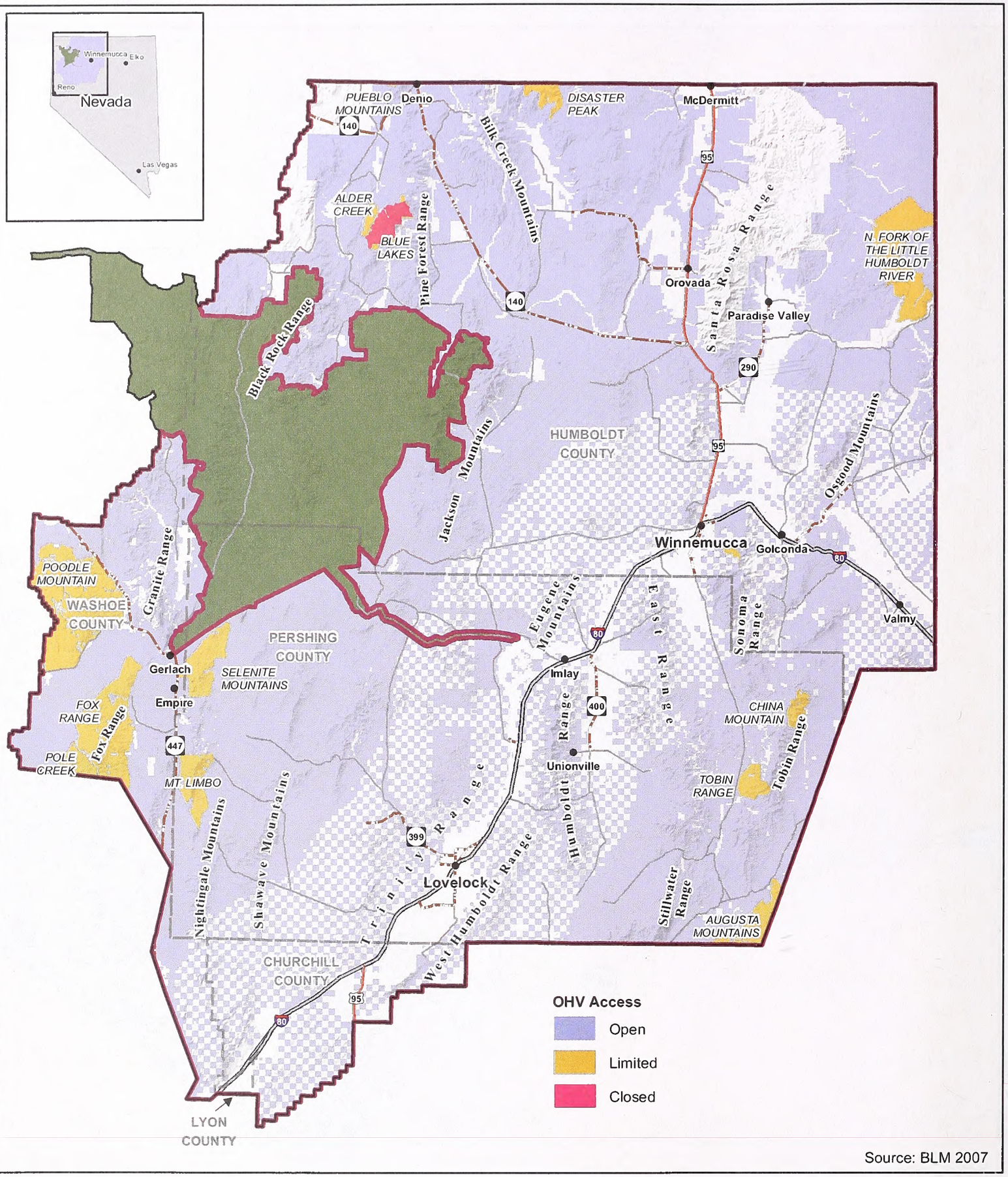
N W E S

0 1 2 Miles

Granite Range SRMA - Recreation Management Zones (RMZs) - Alternatives B & D

Northwest Nevada

Figure 2-49



15186.1-05 - Oct 2012

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Legend

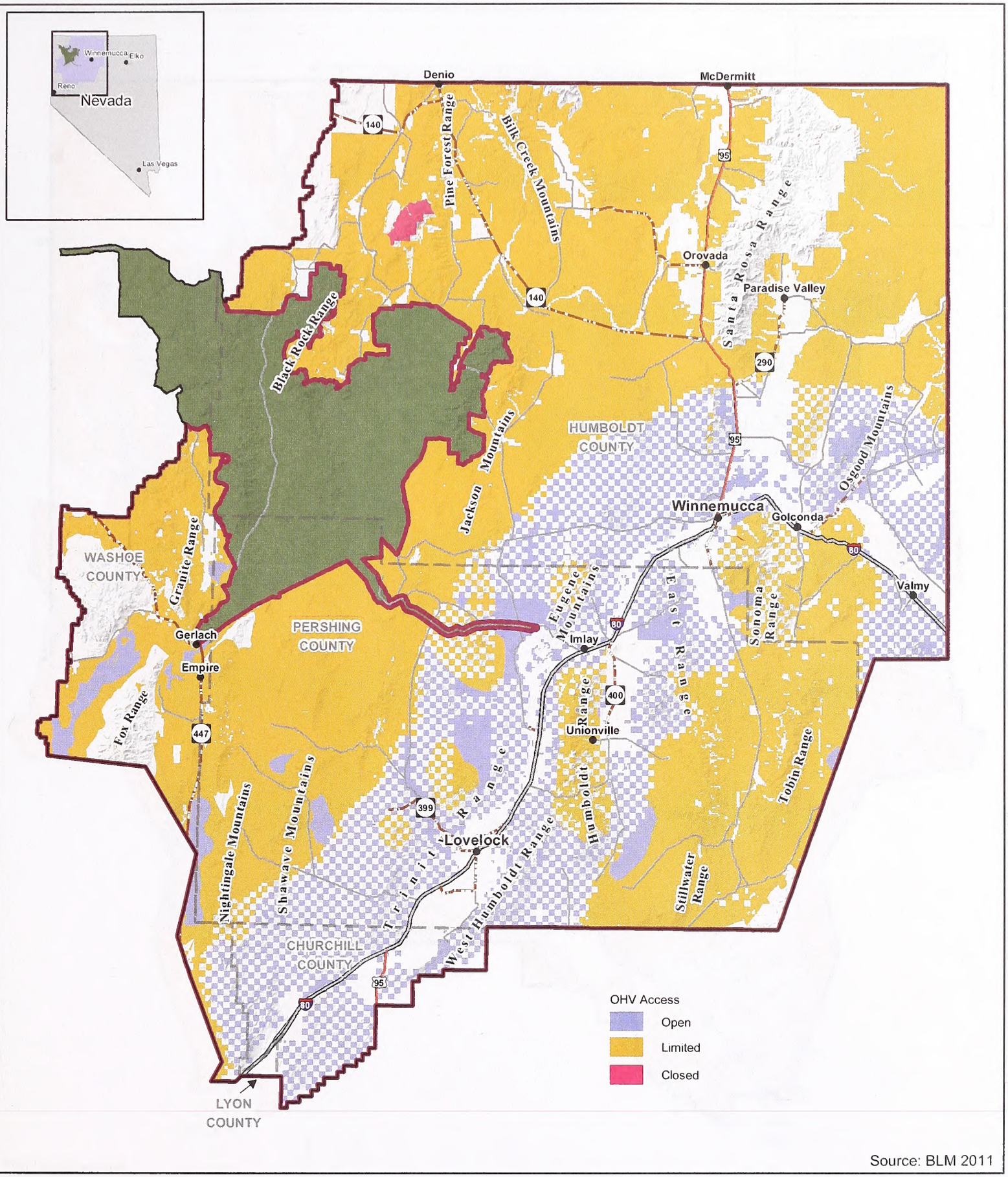
- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Winnemucca District RMP OHV Access - Alternative A

Northwest Nevada

Figure 2-50



Source: BLM 2011

15186.1-05 - Oct 2012

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N
W E
S

0 10 20 Miles

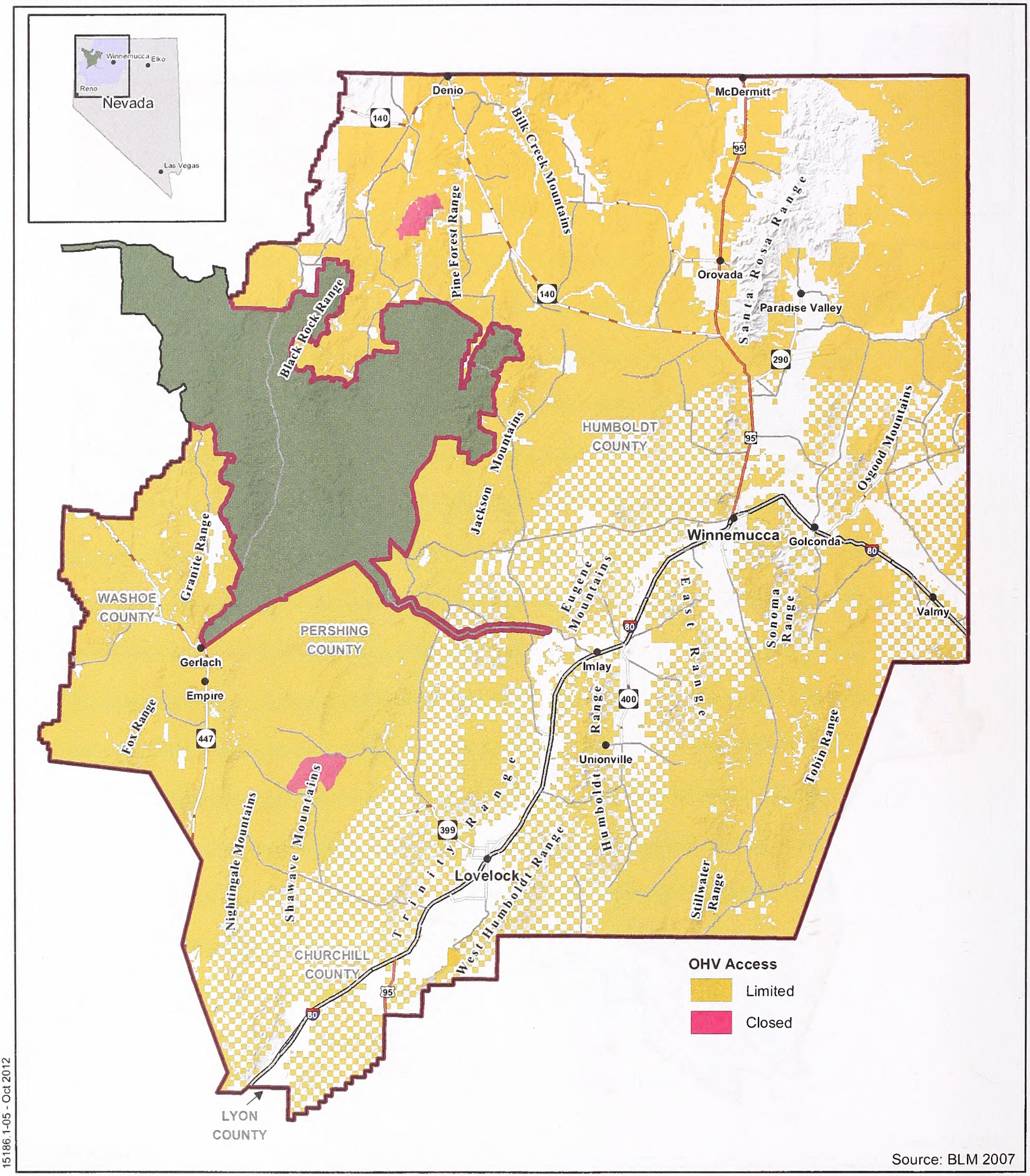
Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

Winnemucca District RMP OHV Access - Alternative B

Northwest Nevada

Figure 2-51



Source: BLM 2007

15186 1-05 - Oct 2012

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N W E S

0 10 20 Miles

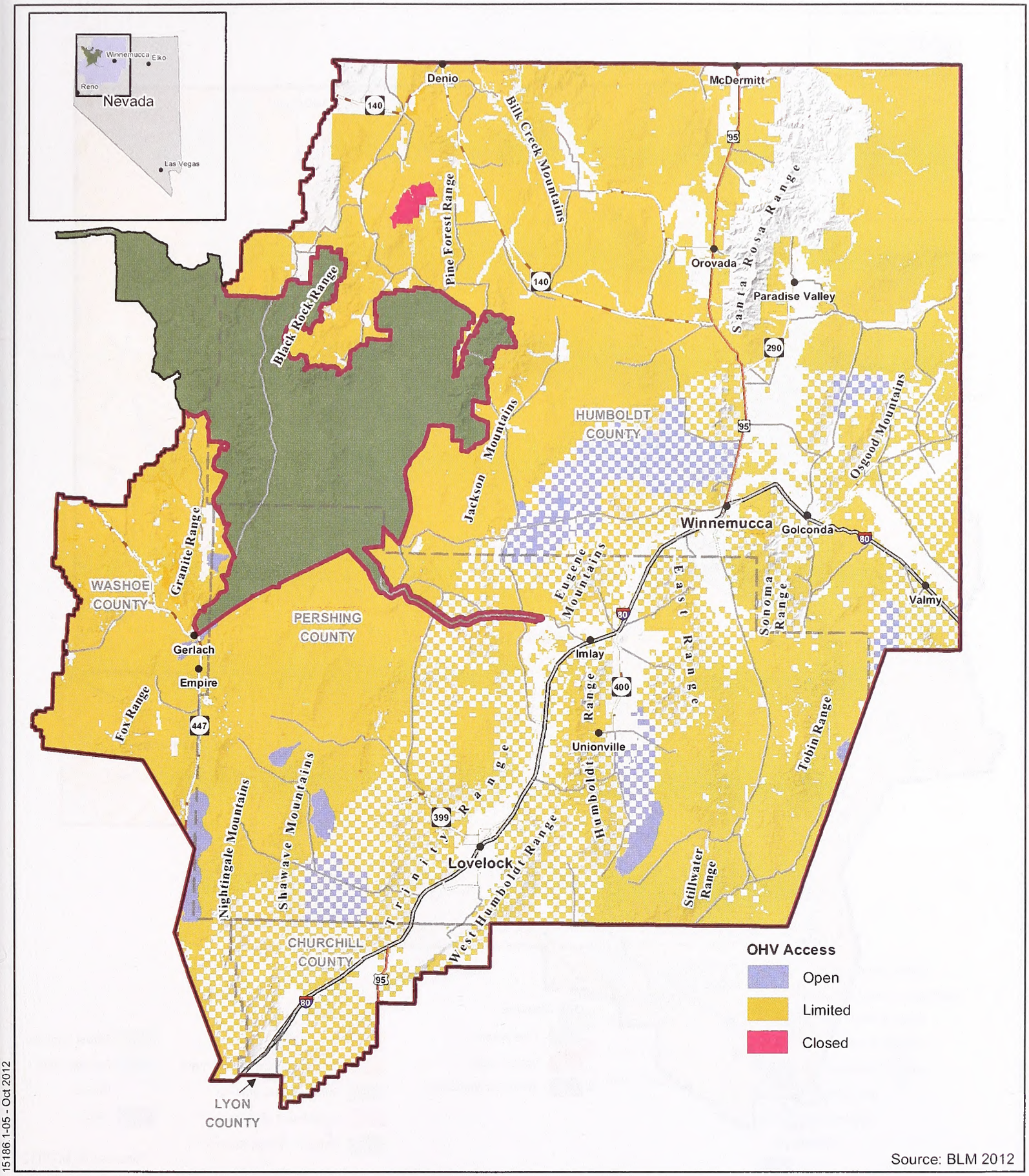
Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

Winnemucca District RMP OHV Access - Alternative C (Options 1 and 2)

Northwest Nevada

Figure 2-52



Source: BLM 2012

15186 1-05 - Oct 2012

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Legend

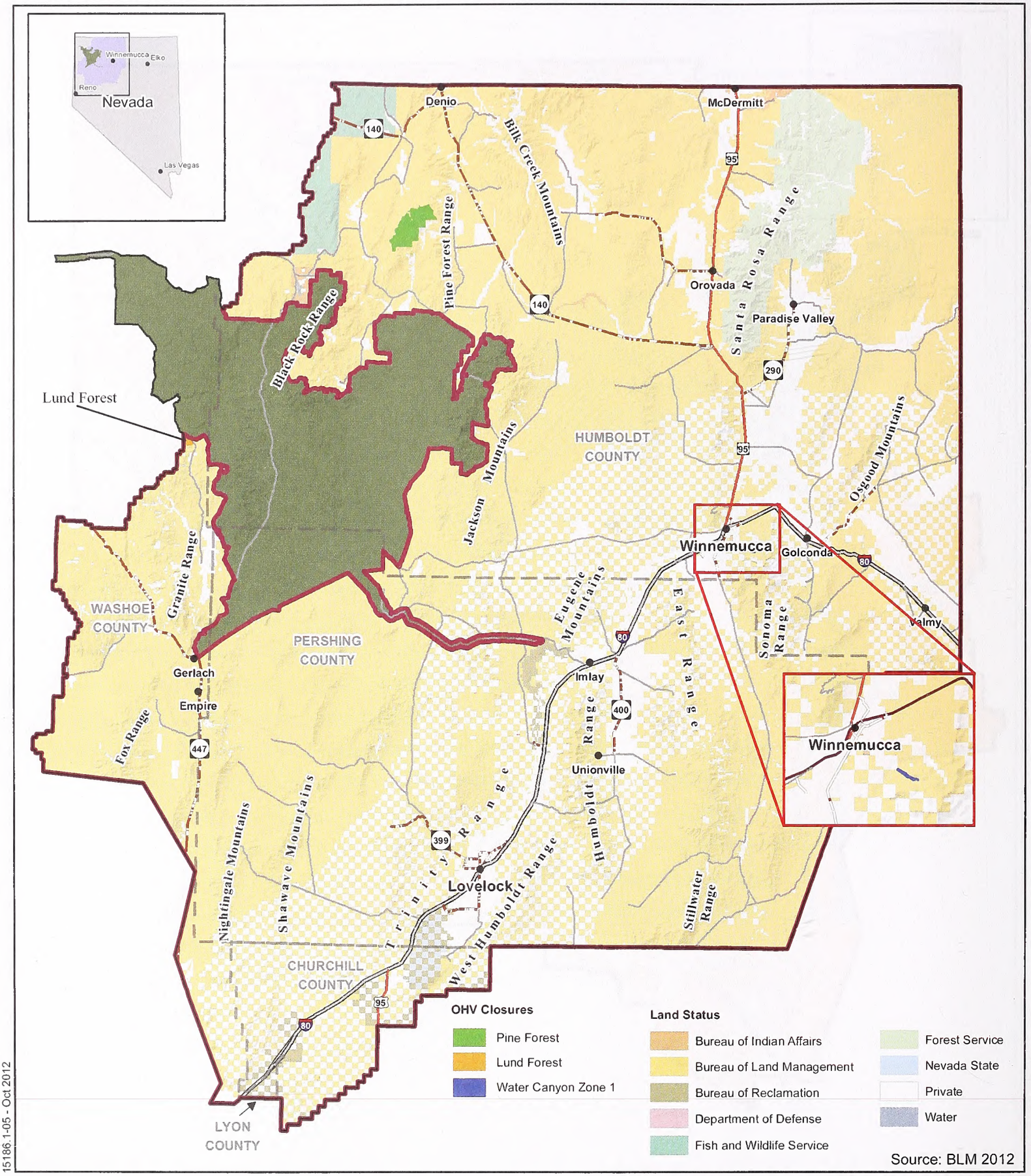
- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Winnemucca District RMP
OHV Access - Alternative D

Northwest Nevada

Figure 2-53



15186.1-05 - Oct 2012

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Legend

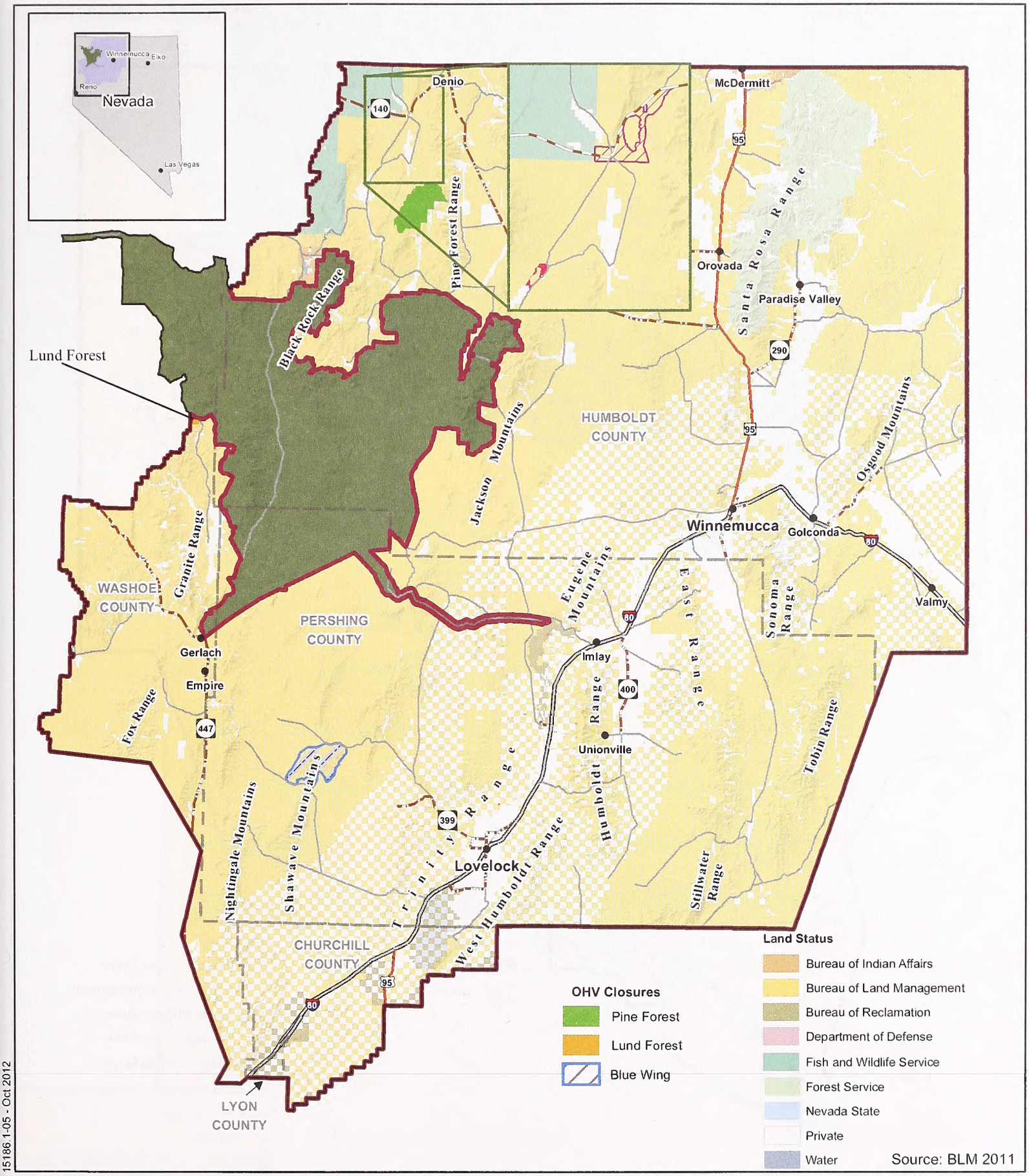
- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Winnemucca District RMP OHV Closures - Alternatives A & B

Northwest Nevada

Figure 2-54



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Legend

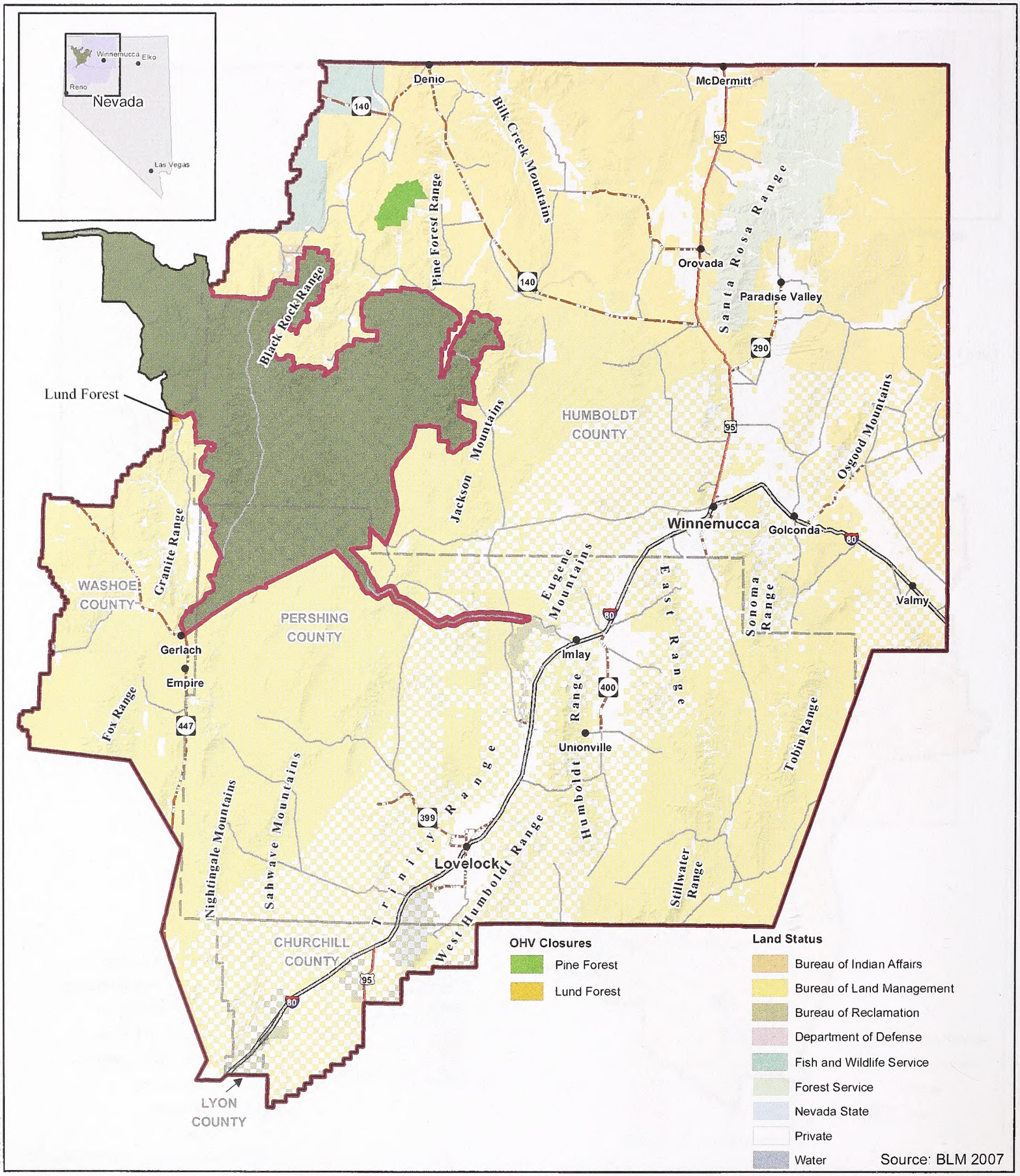
- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Winnemucca District RMP OHV Closures - Alternative C (Options 1 and 2)

Northwest Nevada

Figure 2-55



15186 1-05 - Oct 2012

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Legend

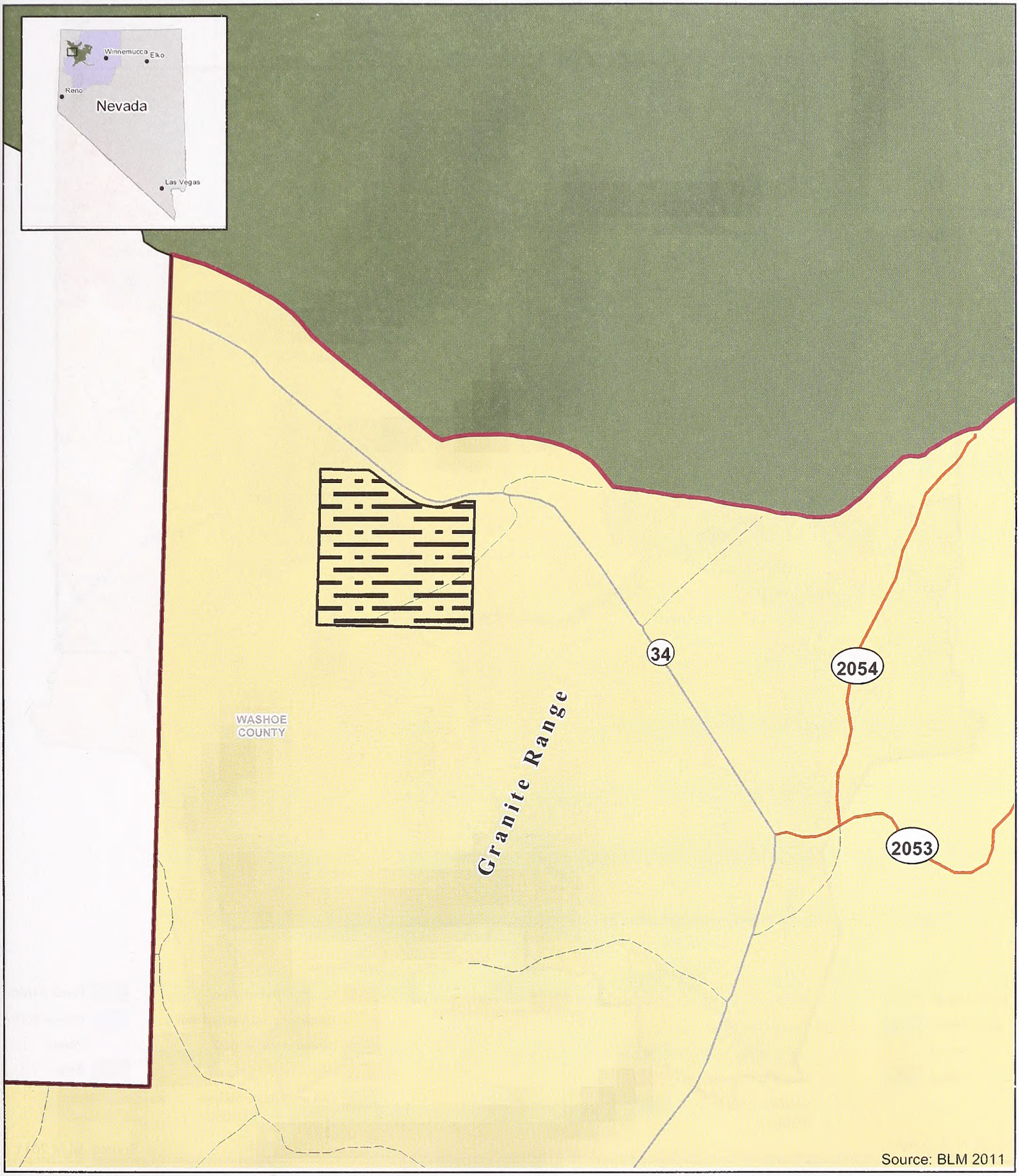
- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Winnemucca District RMP OHV Closures - Alternative D

Northwest Nevada

Figure 2-56



15186.1-05 - Oct 2012

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N
W E
S

0 1,000 2,000 Feet

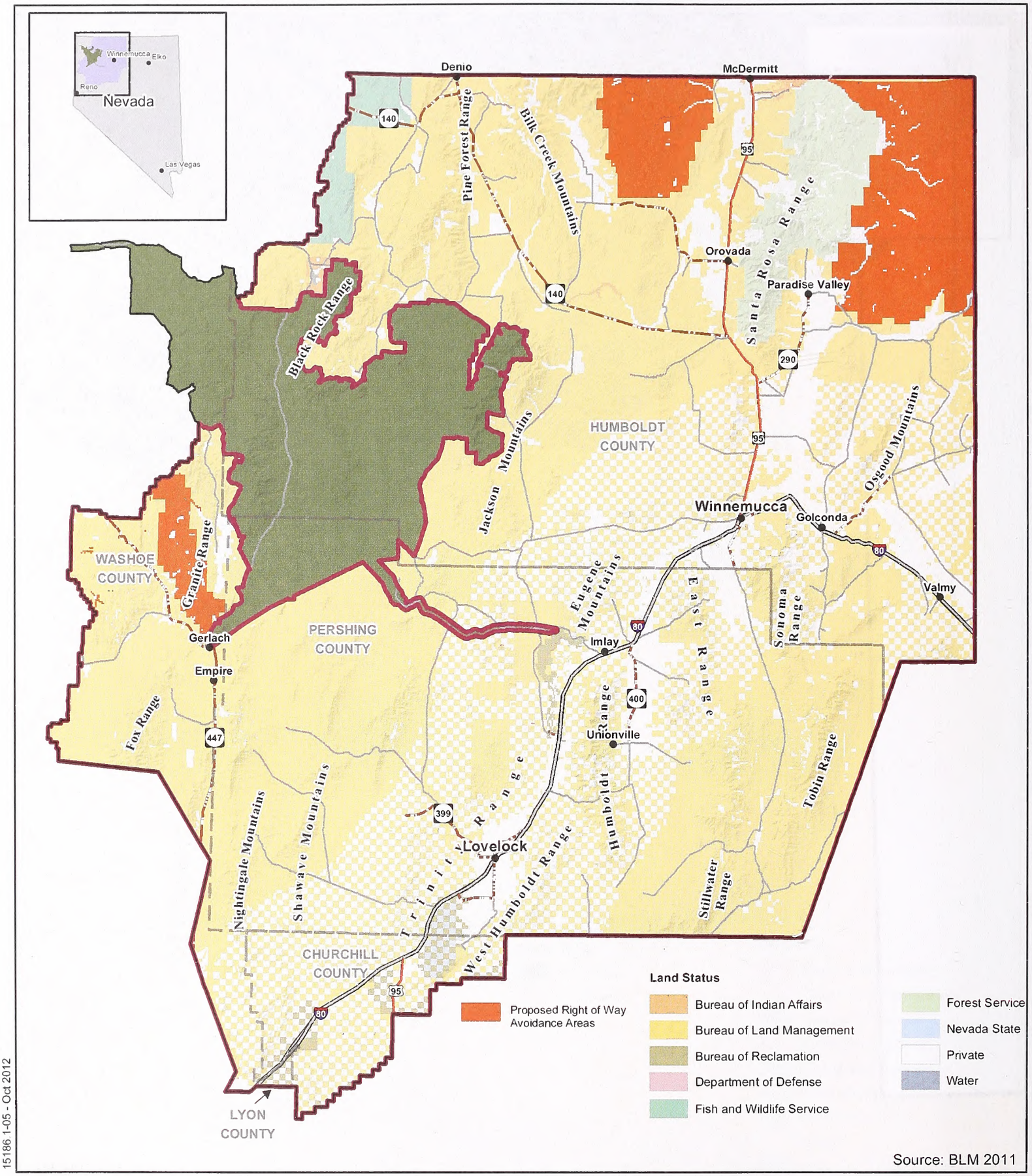
Legend

- Lund Forest Closed to OHV
- Black Rock/High Rock NCA RMP Area
- County Roads
- Other Dirt Roads
- 2011 BLM Road
- Bureau of Land Management
- Private
- BLM Winnemucca RMP Boundary
- BLM Winnemucca District Administrative Boundary

Winnemucca District RMP Lund Forest OHV Closure - Alternatives A-D

Northwest Nevada

Figure 2-57



15186 1-05 - Oct 2012

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Winnemucca District RMP
Proposed Right of Way Avoidance Areas - Alternative B

Northwest Nevada

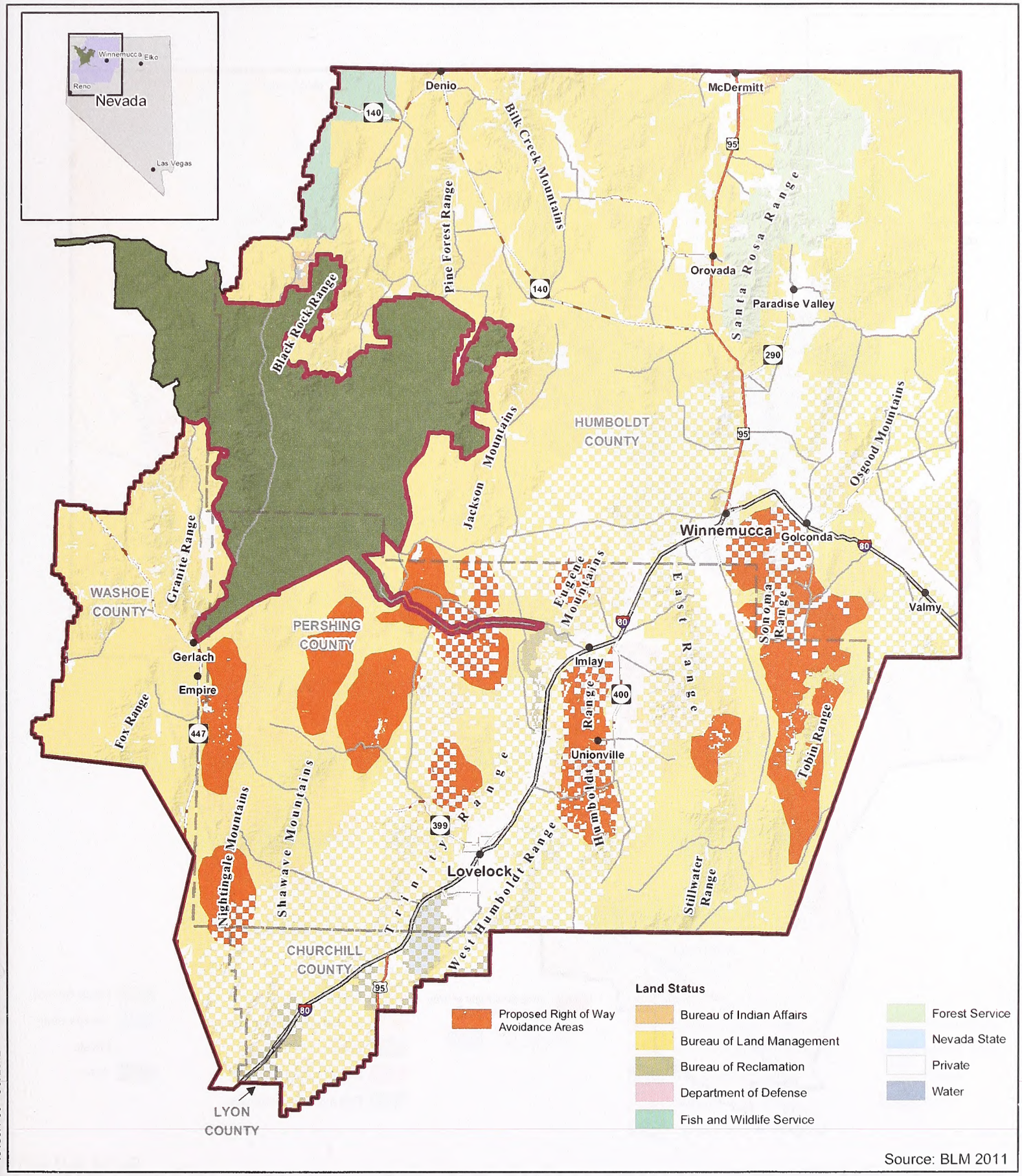
Figure 2-58

Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

N W E S

0 10 20 Miles



Source: BLM 2011

15186.1-05 - Oct 2012

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Legend

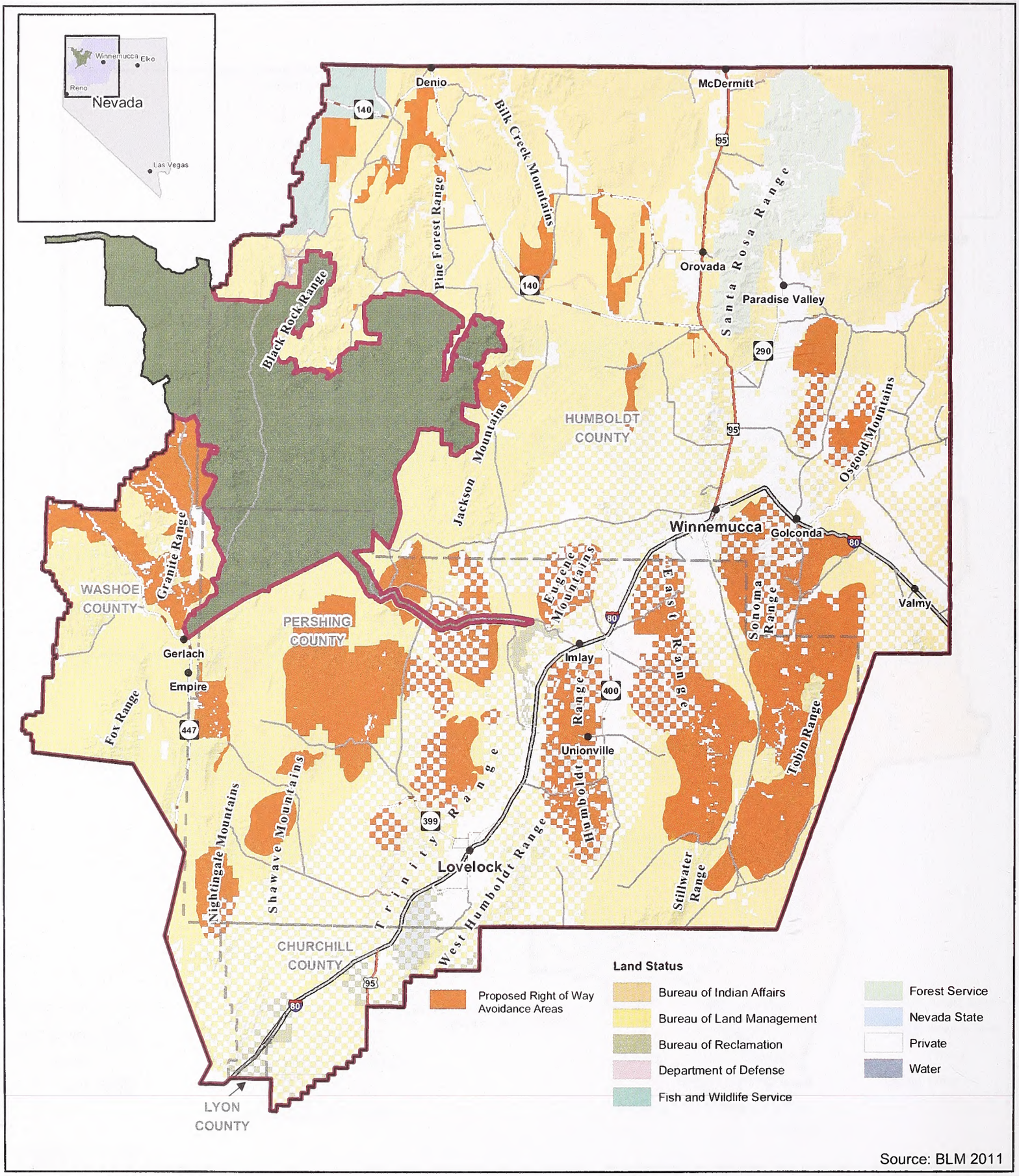
- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Winnemucca District RMP
Proposed Right of Way Avoidance Areas - Alternative C

Northwest Nevada

Figure 2-59



Source: BLM 2011

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Winnemucca District RMP
Proposed Right of Way Avoidance Areas - Alternative D

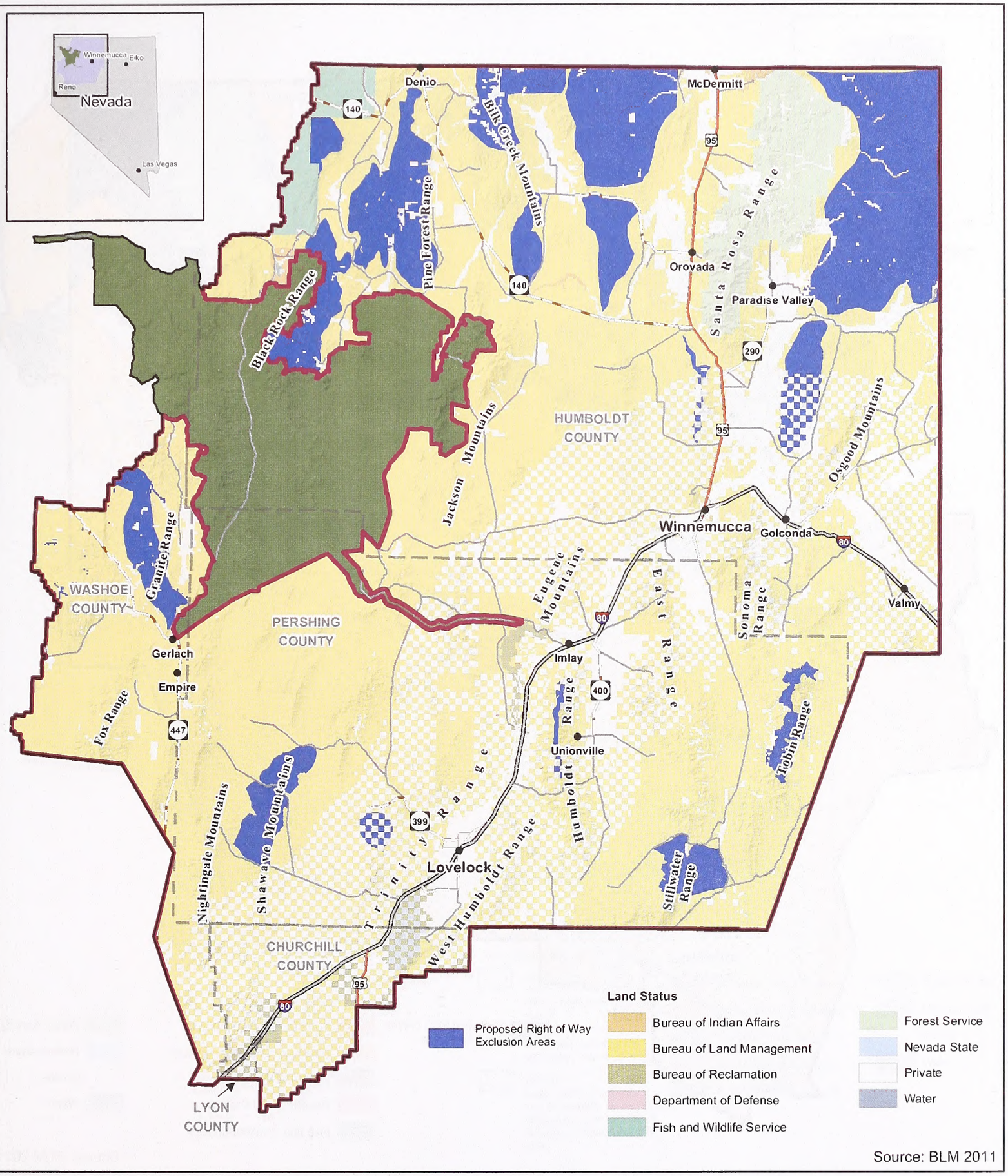
Northwest Nevada

Figure 2-60

Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundaries
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles



Source: BLM 2011

15186.1-05 - Oct 2012

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Winnemucca District RMP
Proposed Right of Way Exclusion Areas - Alternative C

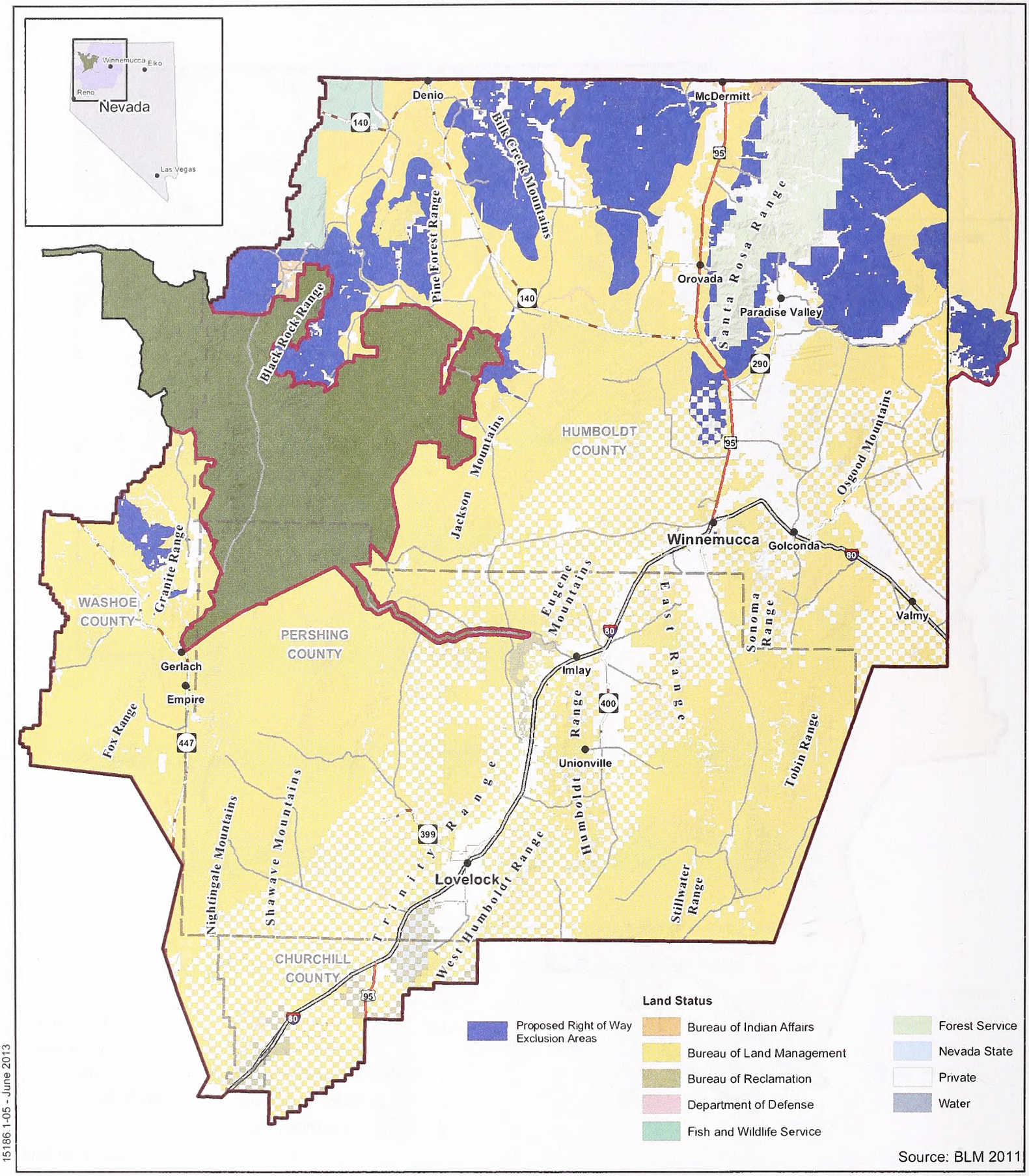
Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundaries
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Northwest Nevada

Figure 2-61



15186 1-05 - June 2013

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Winnemucca District RMP
Proposed Right of Way Exclusion Areas - Alternative D

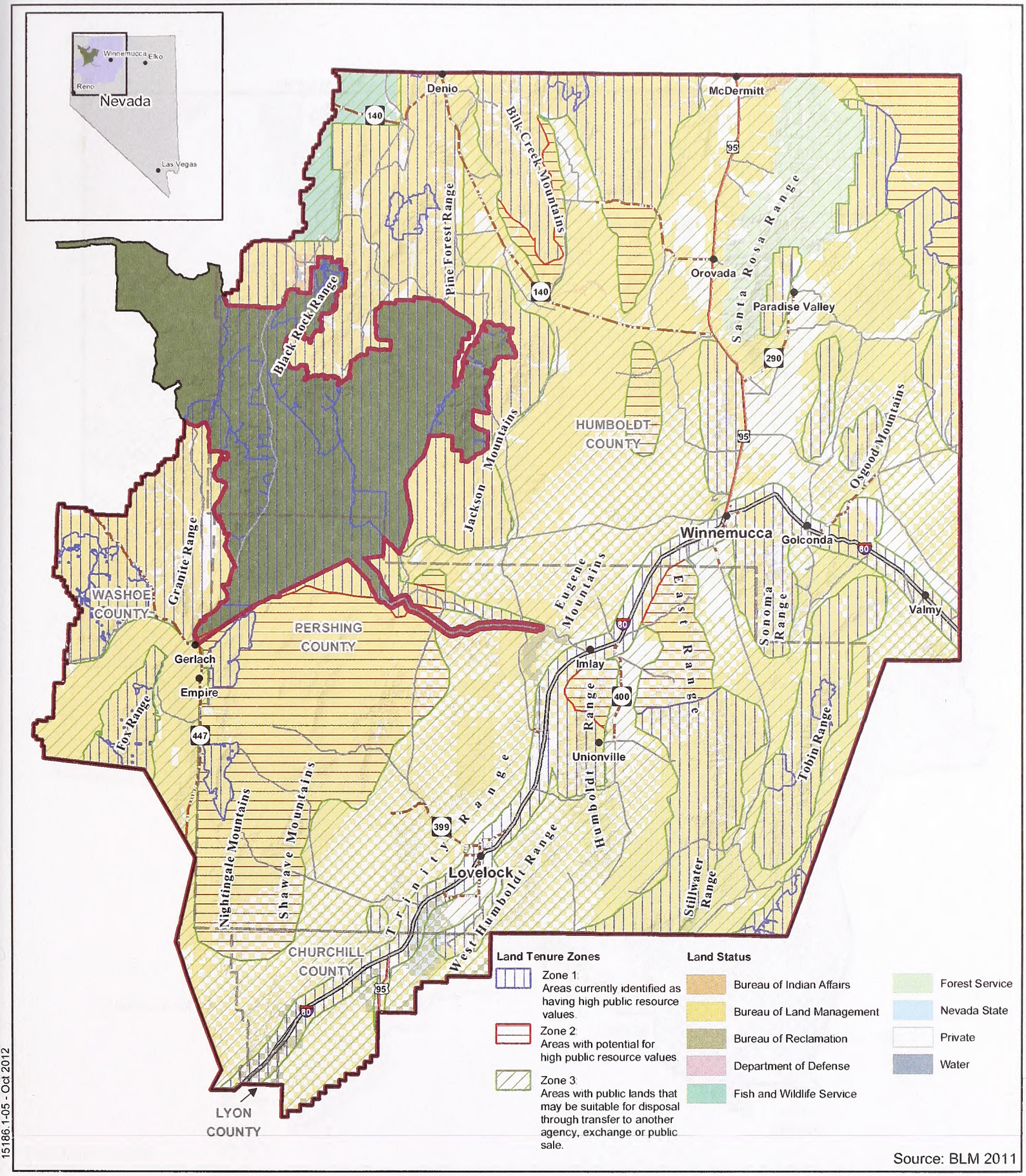
Northwest Nevada

Figure 2-62

Legend

- BLM Winnemucca Office Administrative Boundary
- BLM Winnemucca RMP Decision Area Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles



Source: BLM 2011

15186.1-05 - Oct 2012

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N W E S

0 10 20 Miles

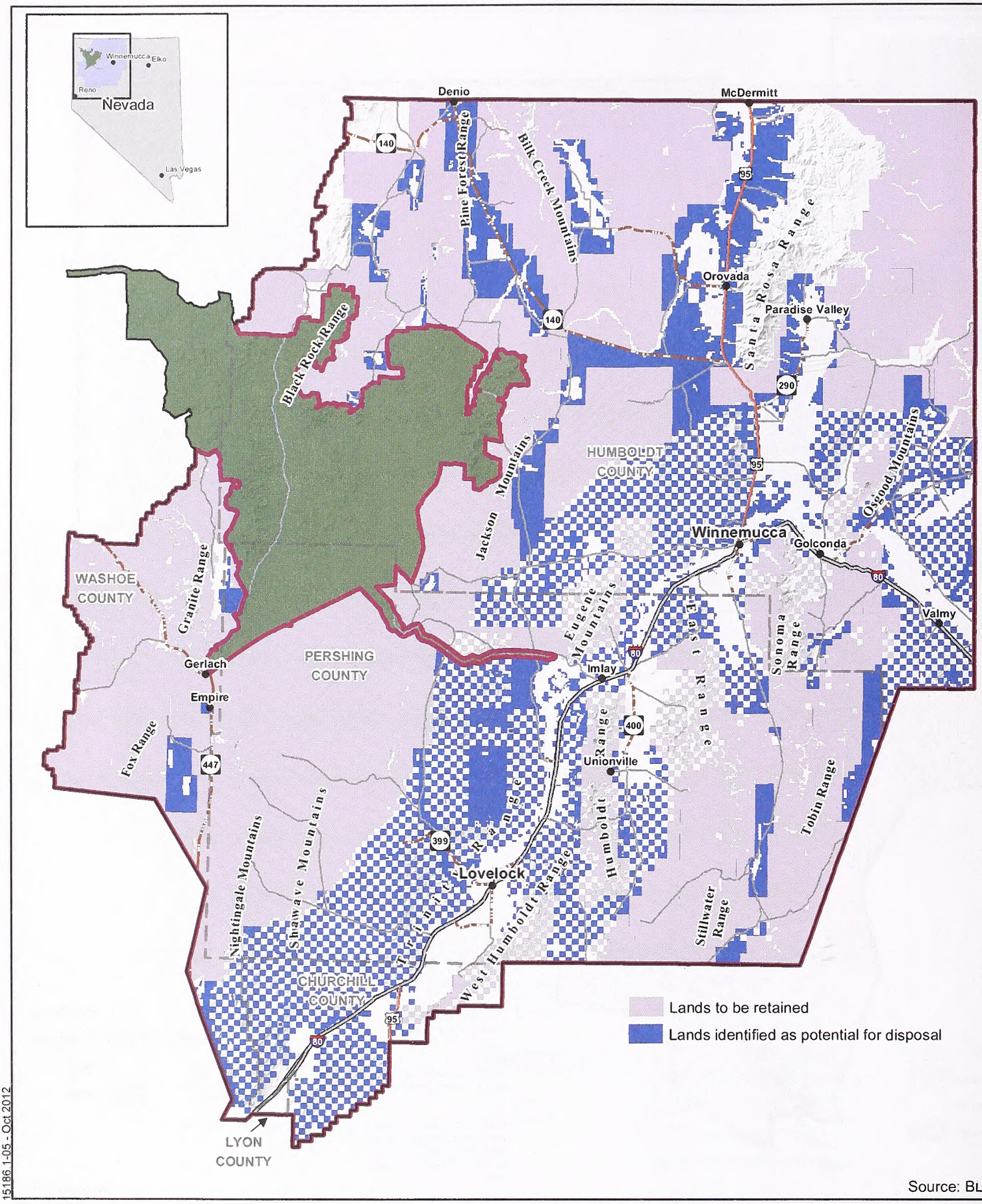
Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

Winnemucca District RMP Land Tenure Zones 1998 - Alternative A

Northwest Nevada

Figure 2-63



Source: BLM 2011

15186 1-05 - Oct 2012

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Legend

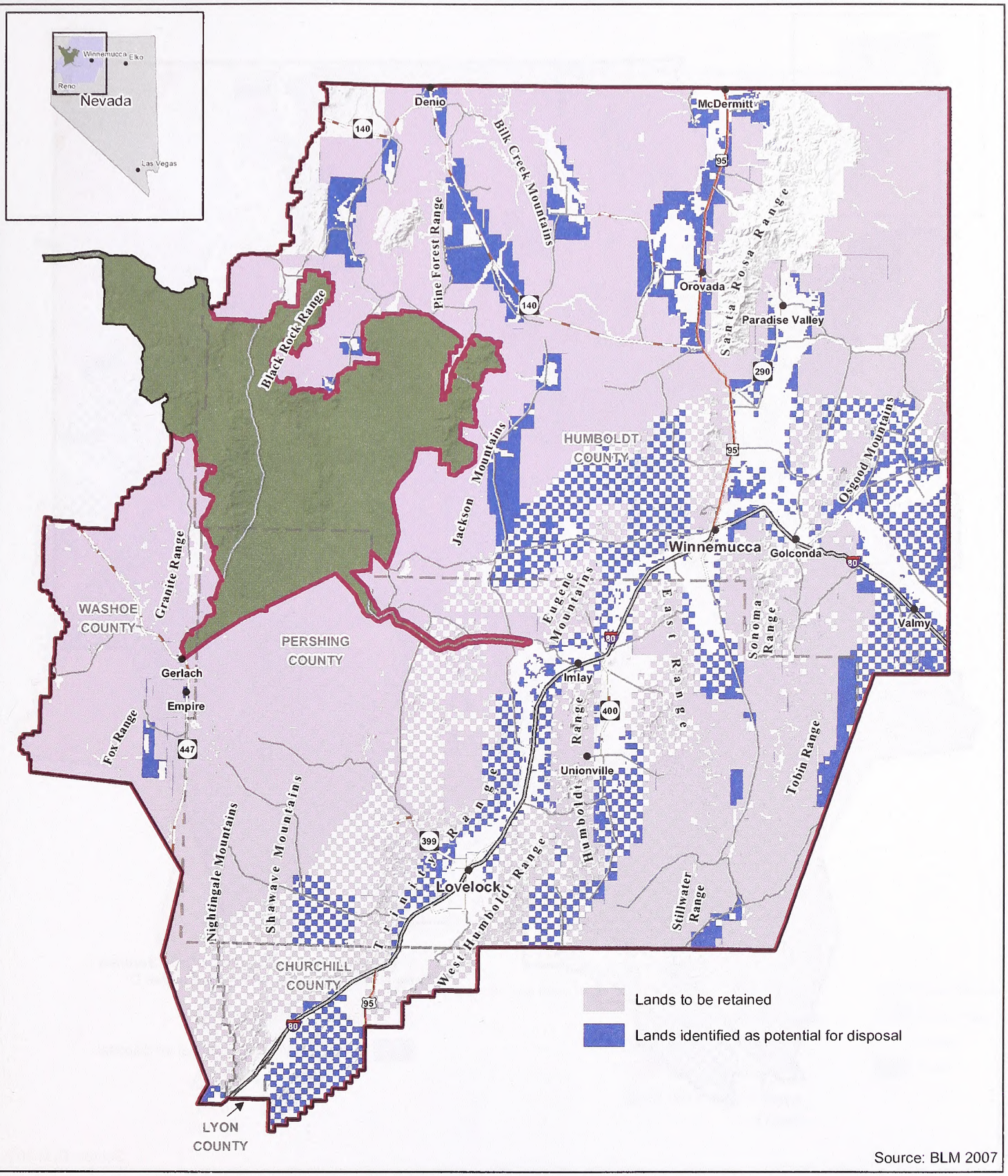
- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Winnemucca District RMP Lands and Realty - Alternative B

Northwest Nevada

Figure 2-64



Source: BLM 2007

15186 1-05 - Oct 2012

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N W E S

0 10 20 Miles

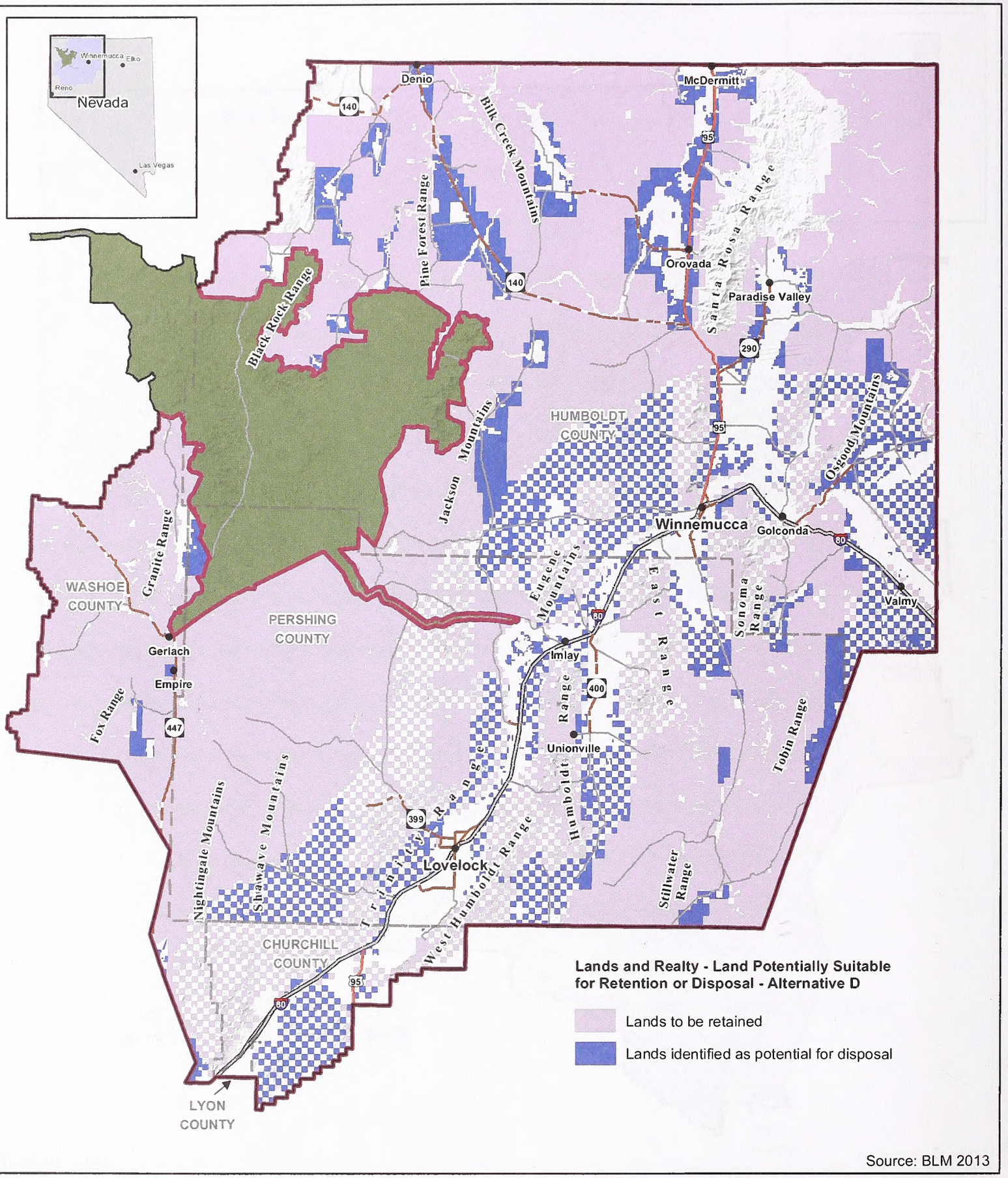
Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

Winnemucca District RMP Lands and Realty - Alternative C

Northwest Nevada

Figure 2-65



Source: BLM 2013

15186 1-05 - June 2013

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0 10 20 Miles

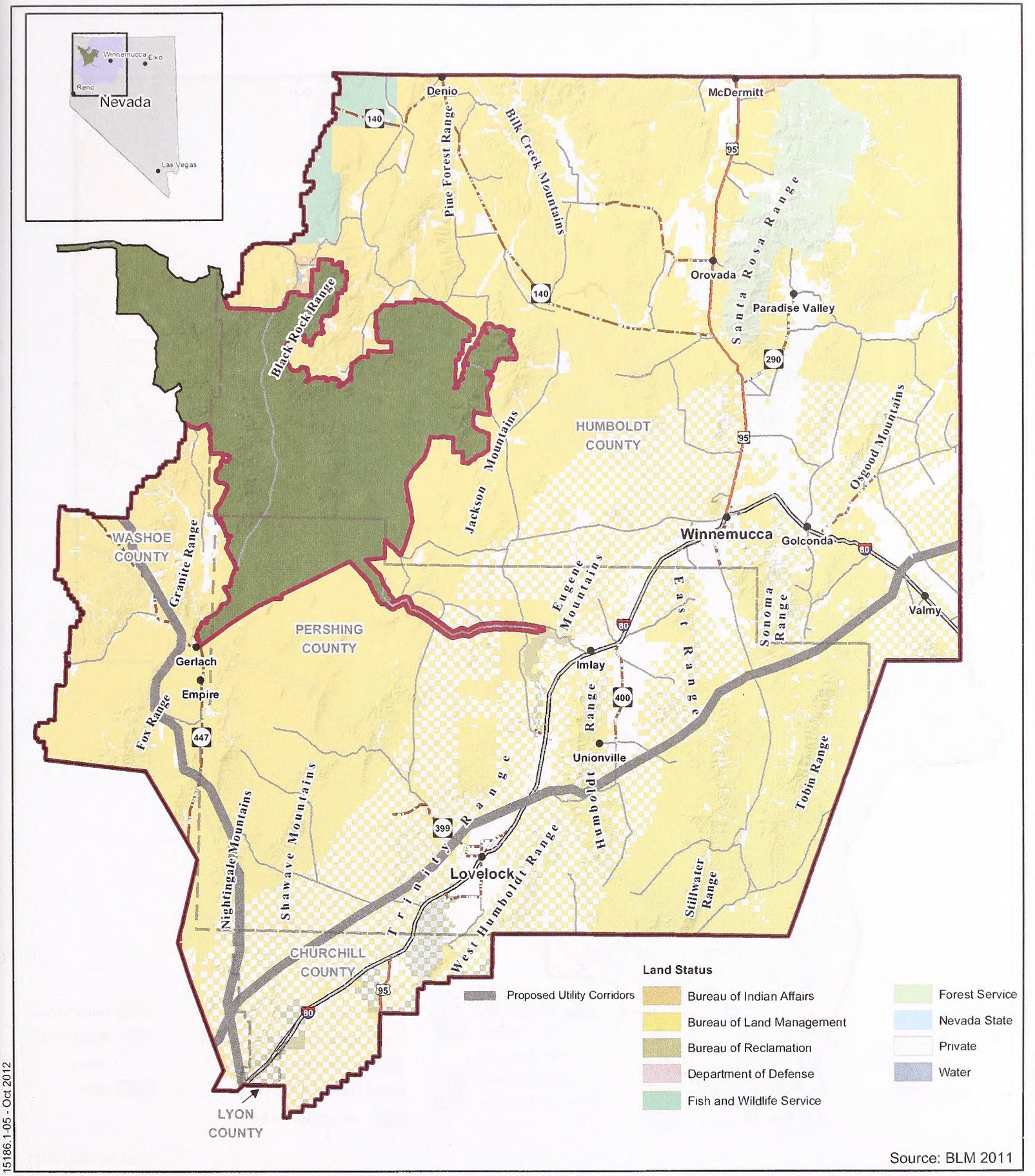
Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

Winnemucca District RMP Lands and Realty - Alternative D

Northwest Nevada

Figure 2-66



Source: BLM 2011

15186.1-05 - Oct 2012

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Legend

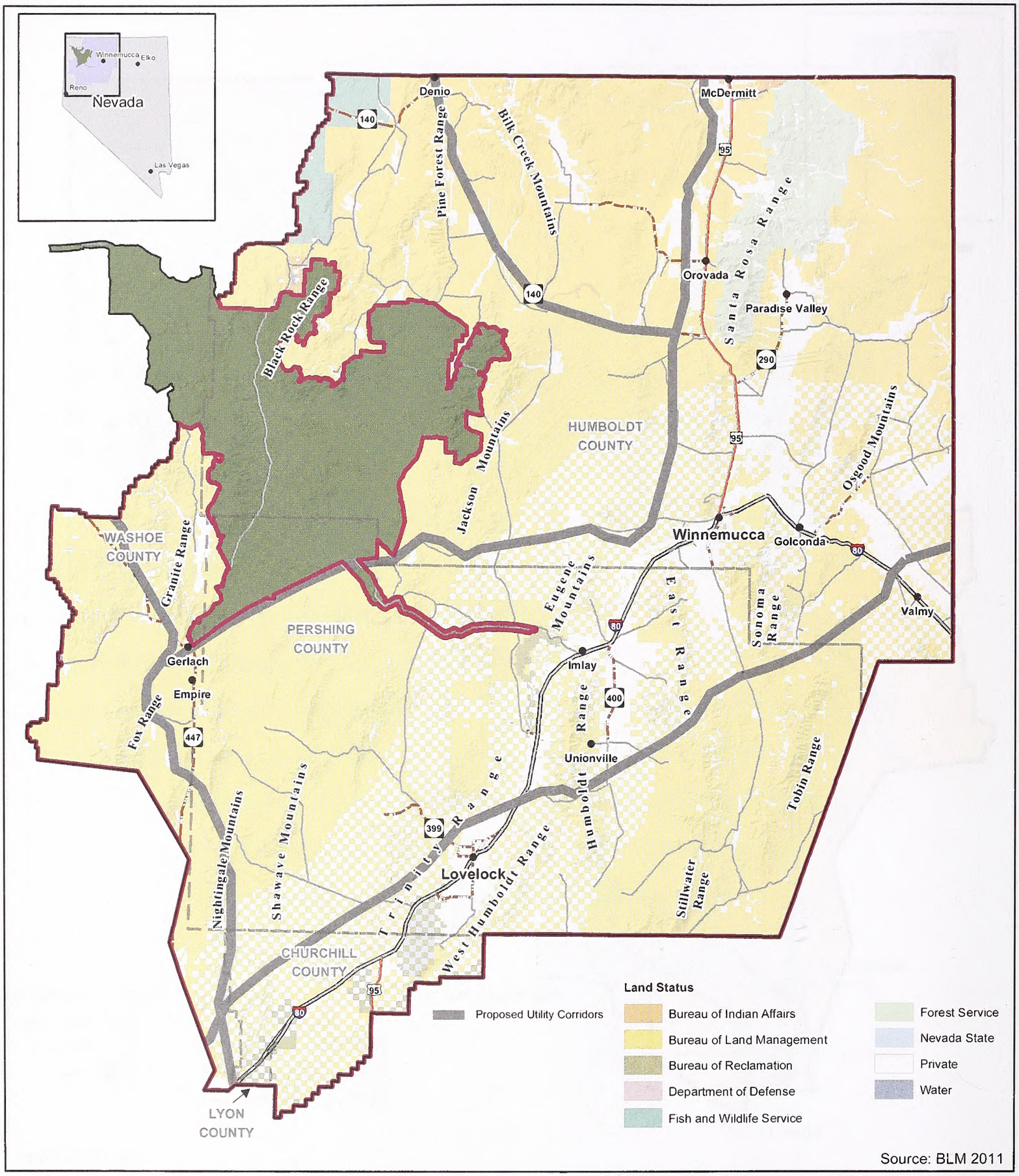
- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Winnemucca District RMP Proposed Utility Corridors - Alternative C

Northwest Nevada

Figure 2-67



Source: BLM 2011

15186 1-05 - Oct 2012

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Winnemucca District RMP Proposed Utility Corridors - Alternative D

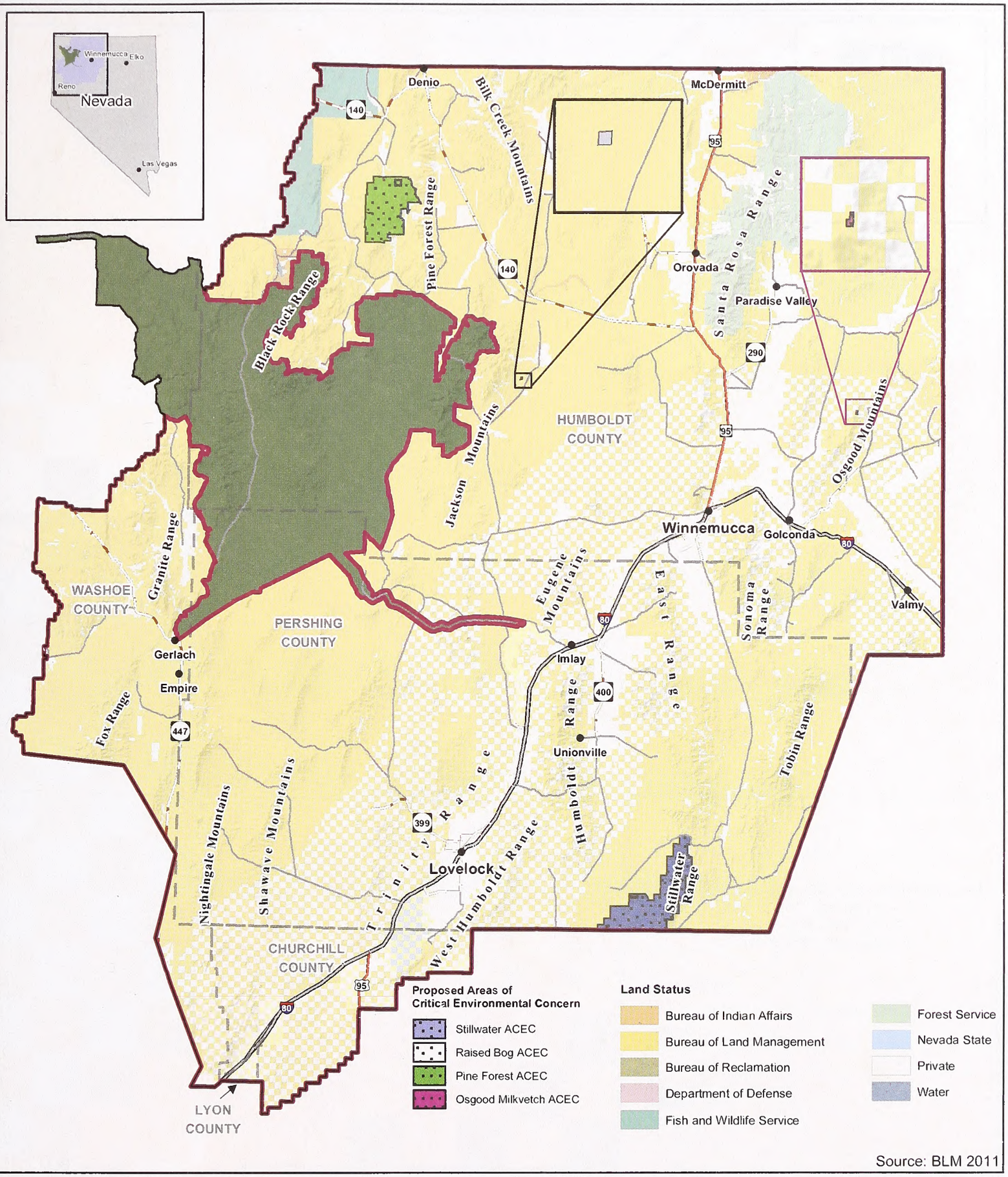
Northwest Nevada

Figure 2-68

Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles



Source: BLM 2011

15186.1-05 - Oct 2012

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Legend

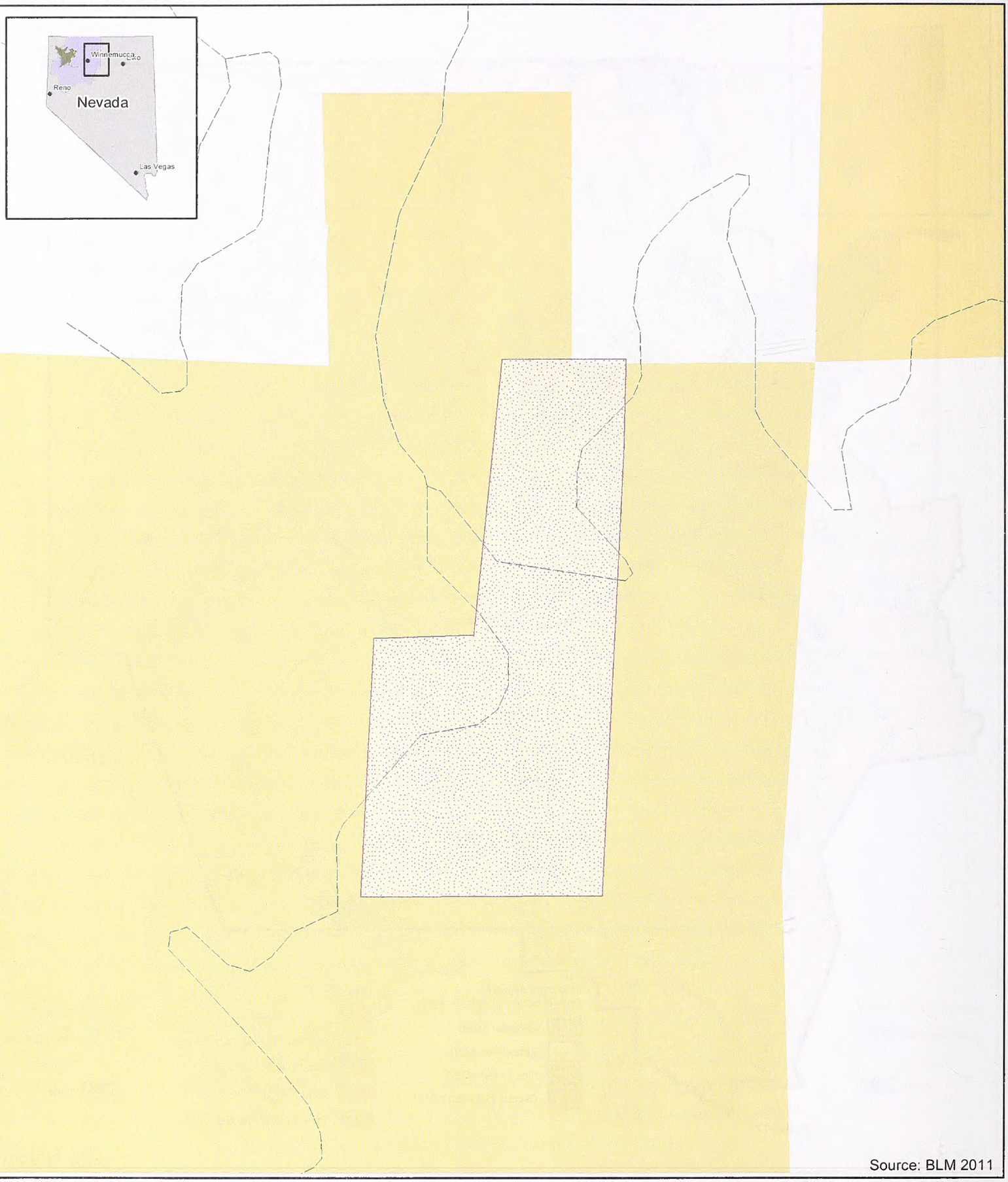
- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Winnemucca District RMP Proposed ACECs - Alternatives C (Options 1 and 2) & D

Northwest Nevada

Figure 2-69



Source: BLM 2011

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Winnemucca District RMP
Osgood Mountains ACEC - Alternatives A-D

Northwest Nevada

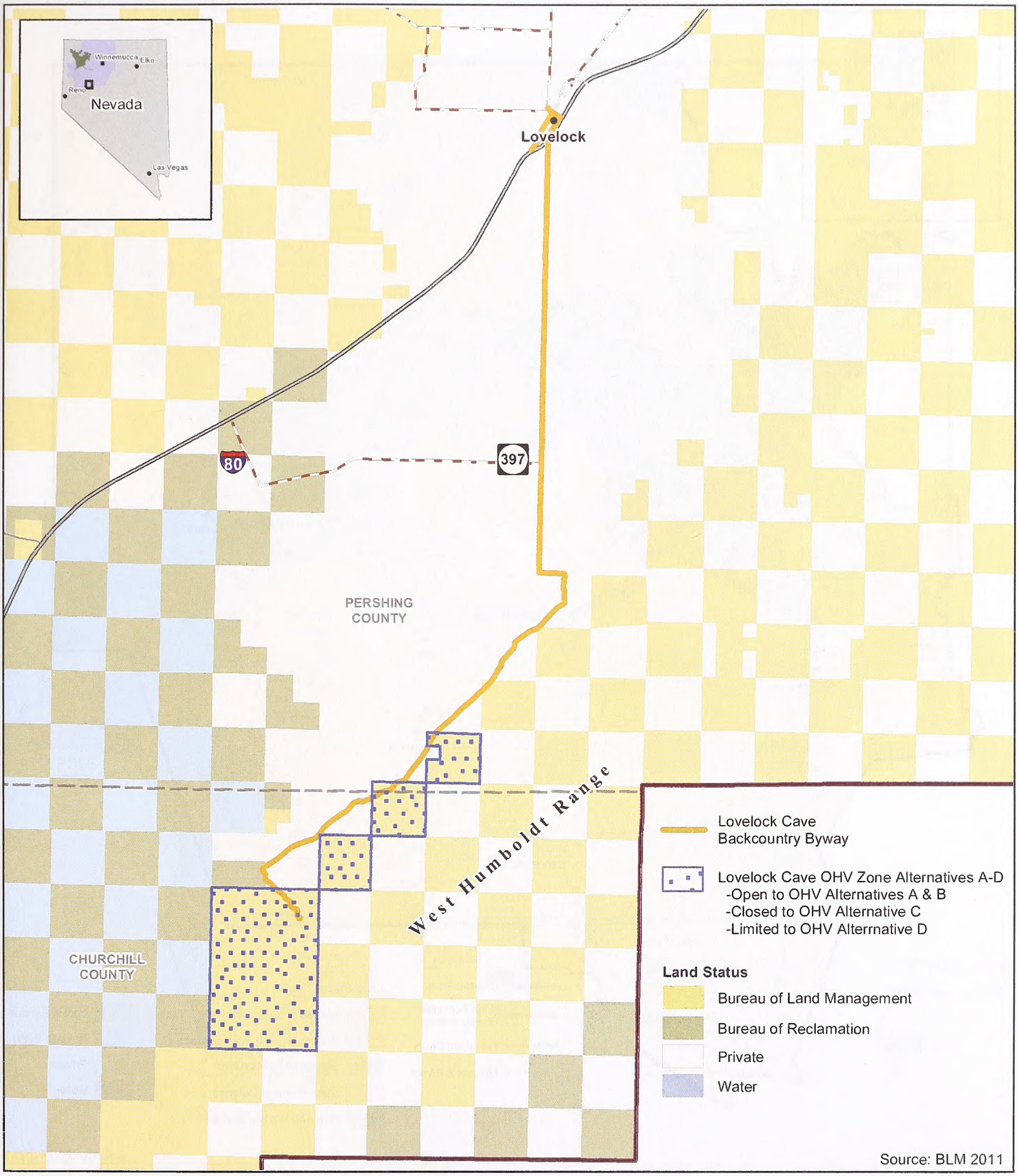
Legend

- Osgood Mountain Milkvetch ACEC
- Bureau of Land Management
- Private
- Other Dirt Roads

N W E S

0 150 300 Feet

Figure 2-70



15186 1-05 - Oct 2012

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N
W E
S

0 1.5 3 Miles

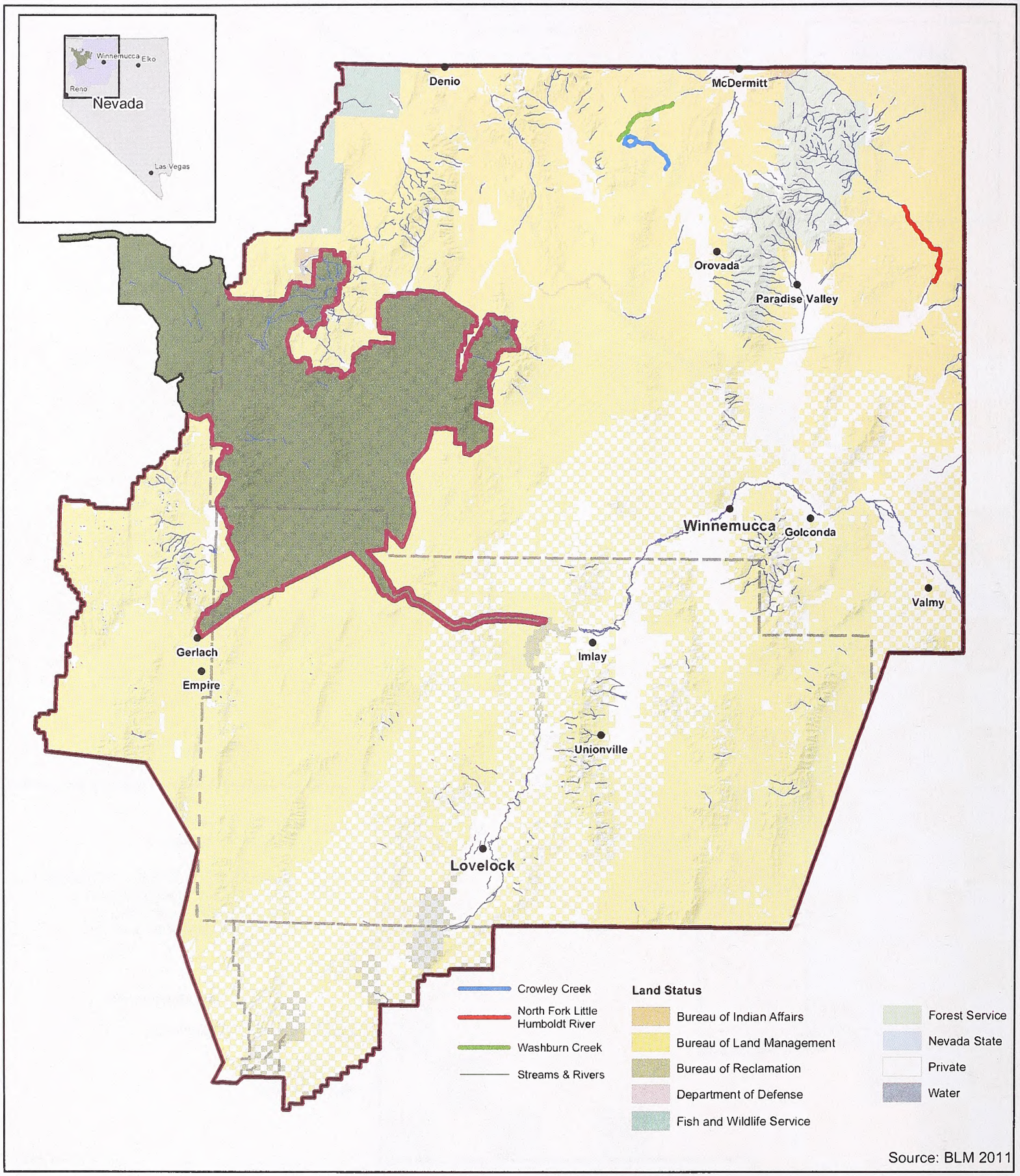
Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- County Boundary
- Towns
- U.S. Interstate
- County Road
- State Highway

Winnemucca District RMP
Lovelock Cave Backcountry Byway - Alternatives A-D

Northwest Nevada

Figure 2-71



Source: BLM 2011

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Winnemucca District RMP Proposed Wild and Scenic Rivers - Alternative C

Northwest Nevada

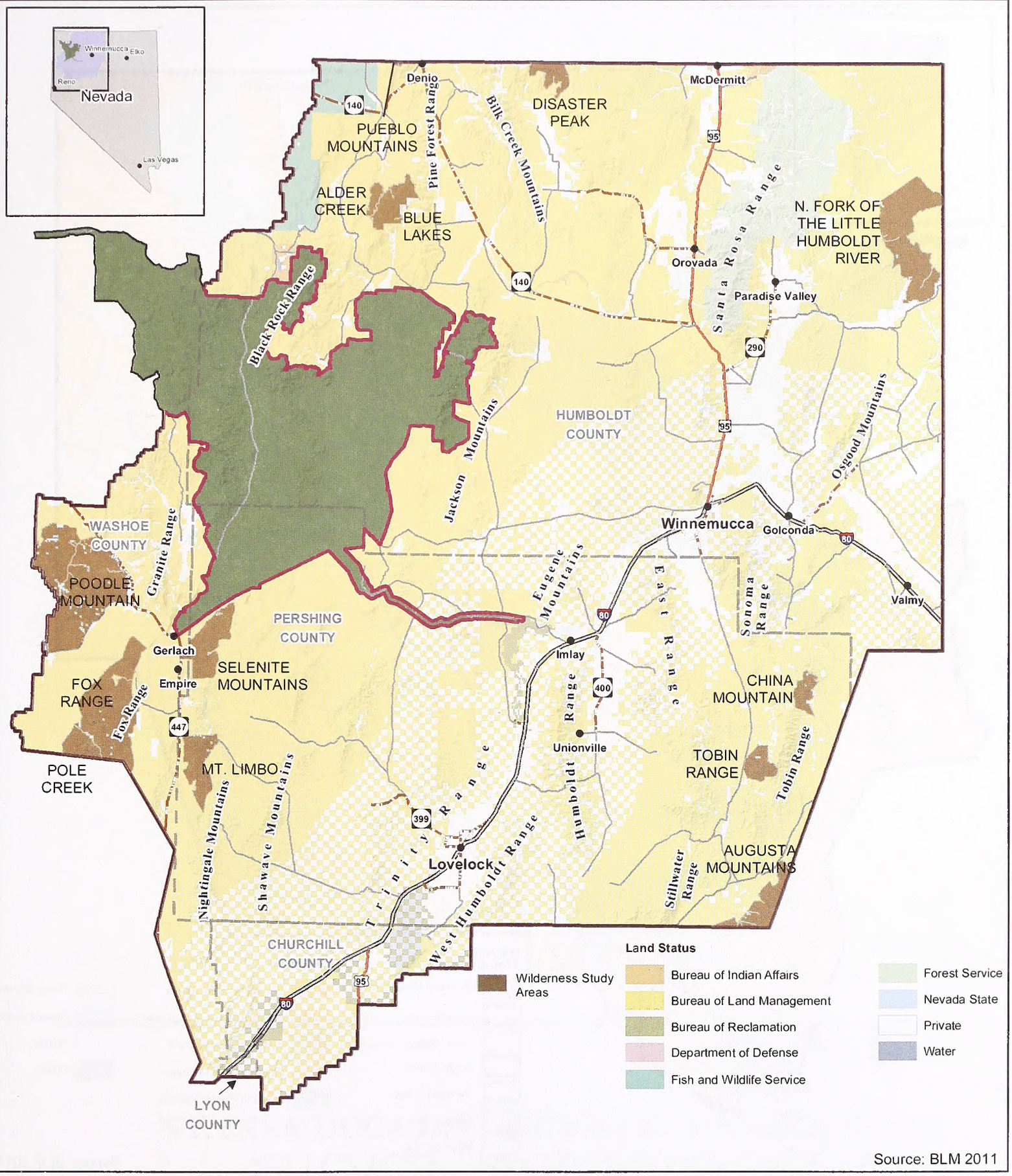
Figure 2-72

Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns

N W E S

0 10 20 Miles



Source: BLM 2011

15186 1-05 - Oct 2012

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Winnemucca District RMP Wilderness Study Areas - Alternatives A-D

Northwest Nevada

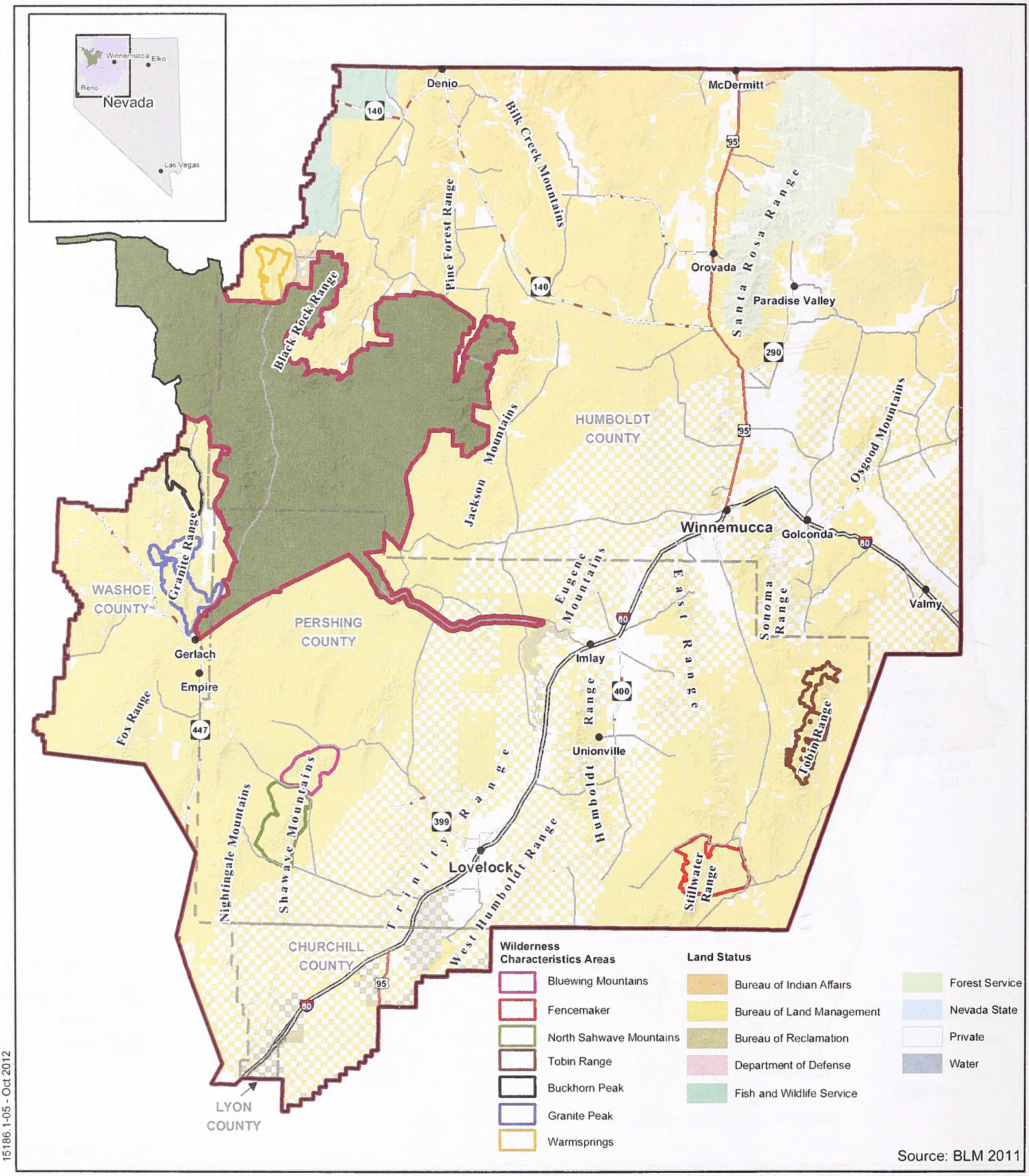
Figure 2-73

Legend

- BLM Winnemucca Office Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

N W E S

0 10 20 Miles



15186.1-05 - Oct 2012

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Winnemucca District RMP
Proposed Wilderness Characteristics Areas - Alternatives B-D

Legend

- BLM Winnemucca District Administrative Boundary
- BLM Winnemucca RMP Boundary
- Black Rock/High Rock NCA RMP Area
- County Boundary
- Towns
- U.S. Highway
- U.S. Interstate
- County Road
- State Highway

0 10 20 Miles

Northwest Nevada

Figure 2-74

APPENDIX B

WINNEMUCCA DISTRICT BEST MANAGEMENT PRACTICES AND STANDARD OPERATING PROCEDURES

GUIDELINES/TECHNIQUES/PRACTICES
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APPENDIX B
GUIDELINES/TECHNIQUES/PRACTICES

INTRODUCTION

Best management practices (BMPs) are often used by land managers to imply a practice that has been specifically developed to mitigate impacts.[1] Standard operating procedures (SOPs) are used by land managers where broader, national or statewide guidance is insufficient to be applied at the district level.[2] The following guidelines, techniques and practices (collectively referred to as management guidelines) are a general summary of the Bureau of Land Management (BLM), Winnemucca District's (WD) BMPs and SOPs and were compiled from a variety of sources including those listed under "Sources & General References" at the end of this appendix. These guidelines are by no means a comprehensive list. The goal of these guidelines, when used in conjunction with other management plans applicable to public land resources and resource uses, is to assist the land manager in achieving desired outcomes or conditions as outlined in the WD Resource Management Plan (RMP) in order to reduce adverse environmental effects. Any number of these guidelines can be applied and/or altered as necessary, to make progress towards, or to achieve, the desired outcome or condition. While the overall vision embraces the use of these guidelines to reduce/minimize impacts on the environment, they are not to be considered a land use plan decision unless specifically designated and identified as being a mandatory action in the WD's RMP. Only changes in specific and identified mandatory actions would require an amendment to the RMP to that affect.

A number of programmatic environmental impact statements (EIS) have been prepared by BLM that have amended various BLM land use plans, including the Paradise-Denio and Sonoma-Gerlach MFPs. The following EISs include BMPs, SOPs, Interagency planning and implementation procedures, and general mitigation measures which may be applied and are incorporated within Appendix B.

- Final Programmatic EIS on Wind Energy Development on BLM-Administered Lands in the Western U.S. (December 2005) – BMPs Attachment A;
- Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States, Programmatic EIS (September 2007) – Appendix B;
- Programmatic EIS for Geothermal Leasing in the Western United States (October 2008) – Appendix D;

---

[1] Best management practices (BMPs) ~ a suite of techniques that guide, or may be applied to, management actions to aid in achieving desired outcomes. BMPs are often developed in conjunction with land use plans, but they are not considered a land use plan decision unless the land use plan specifies that they are mandatory. They may be updated or modified without a plan amendment if they are not mandatory. (BLM Handbook H1601-1; Glossary)

[2] Standard Operating Procedure (SOPs)~a written procedure, or set of written procedures, providing direction for consistently and correctly performing routine operations. These written procedures set forth methods expected to be followed during the performance of the particular task. The SOPs for the BLM, Winnemucca District, are approved by the land use manager and are adopted as policy for the Winnemucca District.

- Programmatic EIS – Designation of Energy Corridors on Federal Land in the 11 Western States (November 2008) – Interagency Planning and Implementation Procedures that apply to the development of ROW applications (Section 2.4); and
- Supplement to the Draft Programmatic EIS for Solar Energy Development in Six Southwestern States (October 2011) – General Mitigation Measures (Section 3.2.1).

The following management guidelines are identified by resource. Since a number of these management guidelines can be applied to a variety of situations, there may be a duplication or similarity of and between these guidelines. Furthermore, although these management guidelines, techniques, and practices may be identified for specific situations or actions (e.g., wind energy right-of-ways, livestock grazing, forestry, or road construction) they are not exclusive to those actions unless otherwise specified.

RESOURCES

AIR QUALITY

Air quality standards are governed by the Clean Air Act of 1990 (as amended) (42 U.S.C. Chapter 85) The Environmental Protection Agency is charged with setting National Ambient Air Quality Standards, currently found at http://www.epa.gov/air/criteria.html. At the state level, the Nevada Department of Environmental Protection has established its standards, available at http://ndep.nv.gov/baqp/baqpollu.html. Further guidance may be found in the State of Nevada Best Management Practices Handbook: http://ndep.nv.gov/bwqp/bmp05.htm (State of Nevada BMPs)[3].

Standard Operating Procedures

Minimize or reduce adverse impacts to air quality from BLM or BLM authorized activities by implementing mitigation measures on a case–by–case basis.

SOIL RESOURCES

Soil standards are governed by the State of Nevada BMPs.

WATER RESOURCES

Water quality standards are governed by the State of Nevada BMPs, but, during times of drought or flooding, certain lands may be temporarily closed to certain uses that may impact water sources or be impacted by flooding waters.

VEGETATION-FORESTRY AND WOODLAND PRODUCTS

Guidelines for Forestry

Standard Operating Procedures

No fuel wood cutting of live trees will be allowed for cottonwood, willow, alder, limber pine, white bark pine, and curl leaf mahogany, unless resource objectives allow otherwise.

Best Management Practices

1. Avoid heavy equipment use in stands of cottonwood, willow, alder, limber pine, white bark pine, and curl leaf mahogany. If heavy equipment use is necessary, allow on a case by case basis and mitigate for adverse impacts.
2. Allow dead and down collection of cottonwood, willow, alder, limber pine, white bark pine, and curl leaf mahogany for personal use.
3. Protect seed and important wildlife habitat trees in Pinyon/Juniper stands.
4. Manipulate pinyon, juniper stands utilizing mechanical, biological, and chemical treatments. Allow tree harvesting for woodland products and biomass reduction.

Guidelines for Christmas Tree and Firewood Harvesting

1. Vehicle use is restricted to existing roads and trails. Do not drive off road.
2. Do not damage adjacent trees.

[3] This handbook will be referenced throughout these guidelines. Further references will not include web address.

3. When cutting down standing trees, cut the stump 12" or less, or as close to the ground as possible.
4. Scatter lopped branches at least 50 feet from the stump.
5. Do not top a larger tree to obtain a Christmas tree.
6. Do not cut trees that have been posted as "**SEED TREE DO NOT FALL**" or "**WILDLIFE TREE DO NOT DISTURB**"
7. Do not harvest any trees within 100 feet of a spring or creek unless trees are identified for selective removal to meet resource objectives.
8. Please pack out your trash as well as trash left by others.

VEGETATION-WEEDS

Standard Operating Procedures

1. On BLM and BLM-authorized projects, e.g., all ROWs, SRPs, and APDs, adopt the following stipulations:
   a. Check body, undercarriage of off-road vehicles, and other equipment for plant material and clean before leaving weed infested areas.
   b. Clean vehicles and equipment (remove soil and plant parts) prior to entering and/or leaving a project area. Use standard contract provisions to ensure that contractors adhere to this guideline.
   c. Identify sites where equipment can be cleaned. Clean equipment before entering BLM lands.
   d. Locate and manage vehicle and equipment wash stations to limit weed and invasive species spread into native plant communities.
   e. Inspect and treat weeds that establish at equipment cleaning sites.
   f. Keep main travel corridors free of noxious weeds to prevent spread and avoid or minimize all types of travel through weed-infested areas. If travel is necessary, restrict such activity to those periods when the spread of seed or propagules is least likely.
   g. Schedule and coordinate roadside maintenance activities in consultation with weed specialists.
   h. Inspect and document inspections on travel ways for weeds and treat as necessary.
   i. Evaluate options, including closure, to regulate the flow of traffic on sites where desired vegetation needs to be established. Sites could include road and trails rights-of-way, and other areas of disturbed soils.
   j. Minimize roadside sources of weed seed that could be transported to other areas.
   k. Avoid all types of travel through weed-infested areas.
   l. Before the project begins, conduct a survey to locate noxious and invasive weeds.
   m. Design projects to avoid infestations, to the extent practicable.

n. Monitor and treat weeds during long-term projects to prevent their establishment and spread.

o. After the project is over, reestablish vegetation (weed-resistant vegetation, where needed), monitor and treat weeds for three years, and revegetate as needed to ensure revegetation success and prevent weed re-invasion.

2. Check body, undercarriage of off-road vehicles, and other equipment for plant material and clean before leaving weed infested areas.

3. Clean vehicles and equipment (remove soil and plant parts) prior to entering and/or leaving a project area.

4. Determine the need for, and when appropriate, identify sites where equipment can be cleaned. Clean equipment before entering BLM lands.

5. Locate and manage vehicle and equipment wash stations to limit weed and invasive species spread into native plant communities.

6. Inspect and treat weeds that establish at equipment cleaning sites.

7. Schedule and coordinate roadside maintenance activities in consultation with weed specialists.

8. Inspect and document inspections on travel ways for weeds and treat as necessary.

9. Ensure that weed prevention is considered in project activities regardless of discipline.

10. Locate project staging areas for refueling, maintenance equipment, materials and operating supplies in weed-free areas.

11. Remove mud, dirt, and plant parts from project equipment before moving it into a project area.

12. Monitor site(s) for weeds after soil disturbing activities and treat as needed.

13. The BLM shall identify on the project area map units that are infested with specific noxious weeds species of concern.

14. When determined to be necessary operator shall develop a site-specific plan for noxious weed and exotic plant prevention and control. Such plan shall be subject to BLM approval. Upon BLM approval, the noxious weed and exotic plant prevention and control plan shall become a part of the authorization of the proposed project, and its provisions shall be enforceable under the terms of the authorization.

15. The operator shall be responsible for the prevention and control of noxious weeds and/or exotic plants of concern on the project area. The operator may also be responsible for prevention and control of noxious weed and exotic plant infestations which are not within the project area, but which are determined by the BLM to have originated within the project area.

16. The operator shall provide prevention and control measures prescribed by the BLM. Noxious weeds and invasive weeds of concern are defined as those species recognized by the state of Nevada under NAC 555.010 or other species of concern the BLM may designate.

17. Operator must clean off-road equipment prior to moving between project areas that are known to be infested with noxious weeds and other project areas, if any, which are free of such weeds.
18. Mitigate and reduce weed spread during prescribed fire activities which includes inventory of weeds prior to burning. Treat high risk areas before burning. Pre- and post-treat high risk weed infestations.
19. Re-establish vegetation on all disturbed soil from construction, reconstruction, and maintenance activities.
20. Use certified weed-free and/or weed-seed-free hay or straw where certified materials are required and/or are reasonably available.
21. Buy only weed free seed and conduct required seed testing before use.
22. Use weed free straw or mulch in re-vegetation activities.
23. Inspect gravel pits and fill sources to identify weed-free sources. Inspect and treat sand, gravel, and fill material to prevent unwanted spread of noxious weeds and non-native species.
24. Inspect material sources on site, and ensure that they are weed-free before use and transport. Treat weed-infested sources for eradication, and strip and stockpile contaminated material before any use of pit material.
25. Track weeds which may affect known populations of BLM sensitive plants. Work with weed coordinator and take potential control measures if necessary.
26. Retain bonds until reclamation requirements are completed, including weed treatments, based on inspection and documentation.

Best Management Practices

1. Executive Order 13112 enhances and orders coordination of Federal activities to control and minimize the economic, ecological, and human health impacts caused by invasive species. The Executive Order also established a National Invasive Species Council to oversee a management plan detailing the goals and objectives of the efforts of the involved Federal agencies.
2. The Federal Plant Protection Act 2000 (Title IV of Publ. 106-224) prohibits introducing any animal, plant or material that is considered harmful to this country's agriculture. The U.S. Department of Agriculture (USDA), Plant Protection and Quarantine Division, is the enforcement authority for this Act.
3. Submit to NSO for approval and reporting requirements Pesticide Use Proposals (PUPs); Pesticide Application Records (PARs); Biological Control Agent Release Proposals (BCARPs); Biological Control Agent Release Records (BCARRs); Pesticide Use Reports (PURs); and Integrated Weed management Reports (IWMRs) as require by BLM policy (BLM Manual – Section 9000).
4. Keep main travel corridors free of noxious weeds to prevent spread and avoid or minimize all types of travel through weed-infested areas. If travel is necessary, restrict such activity to those periods when the spread of seed or propagules is least likely.

5. Evaluate options, including closure, to regulate the flow of traffic on sites where desired vegetation needs to be established. Sites could include road and trail rights-of-way, and other areas of disturbed soils.
6. Minimize roadside sources of weed seed that could be transported to other areas.
7. Avoid all types of travel through weed-infested areas.
8. Determine prevention and maintenance needs and measures to be included at the onset of project, operation and reclamation plans at all phases including project layout, design, alternatives evaluation and project decision.
9. Incorporate actions such as project inspection, documentation, and weed prevention, including the use of herbicides, if needed, into planning documents.
10. Environmental analysis for projects and maintenance programs will need to assess weed risks, analyze potential treatment of high-risk sites for weed establishment and spread, and identify prevention practices.
11. Consider seasonal impacts of management actions (e.g., growing vs. dormant season disturbance effects) when developing objectives and strategies.
12. Begin project operations in areas without non-native or noxious weed species.
13. Before initiating ground-disturbing activities, identification and inventories of noxious weeds and other invasive species should be completed within and adjacent to project areas as well as along access routes and potential invasion vicinity. High-risk noxious weed infestations should be avoided when possible.
14. Treat or have weeds treated on projects used by contractors before activities commence.
15. Coordinate project activities with any nearby herbicide application to maximize cost effectiveness of weed treatments.
16. Determine need for, and when appropriate, identify sites where equipment can be cleaned.
17. If operation occurs within an infested area, workers need to inspect, remove, clean, and properly dispose of weed seed and plant parts found on clothing and equipment before leaving projected site.
18. Inspect and document the area where material from treated weed-infested sources is used, annually for at least three years after project completion, to ensure that any weeds transported to the site are promptly detected and controlled.
19. Avoid or minimize all types of travel through weed-infested areas, or restrict to those periods when spread of seed or propagules are least likely.
20. Minimize soil disturbance to the extent practical, consistent with project objectives.
21. Retain native vegetation in and around project activity and keep soil disturbance to a minimum, consistent with project objectives.
22. Where project disturbance creates bare ground, consistent with project objectives, re-establish vegetation to prevent conditions to establish weeds.

23. Use caution when transporting vegetative materials and wood products from project sites to minimize the spread of invasive and non-native pests.
24. Unless the entire project area is already infested with specific noxious weed species of concern, operator shall ensure that prior to moving on to project site, all off-road equipment, which last operated in areas known by the BLM to be infested with specific noxious weeds of concern, is free of soil, seeds, vegetative matter, or other debris that could contain or hold seeds.
25. Operator shall employ whatever cleaning methods are necessary to ensure that off-road equipment is free of noxious weeds.
26. Vehicles and equipment exposed to contamination and requiring less than a complete detailed cleaning include any vehicle or equipment that is only minimally exposed to the natural environment because of its operational requirements.
27. Ensure revegetation efforts are effective.
28. Schedule management activities (e.g., range management/grazing) when they may be most detrimental to populations of noxious weeds and non-native species without harming preferred species.
29. Use domestic animals to contain the target species in the treatment areas prior to weed seed set
30. Avoid creating soil conditions that promote weed germination and establishment.
31. Minimize soil disturbance which may encourage establishment of non-native plants or noxious weed species.
32. Use sterile or non-persistent exotic plants at low planting densities as nurse crops for local natives to preclude the migration of noxious weeds into adjacent natural areas.
33. Design vegetation treatments that create small-scale openings in order to minimize the 'footprint' of disturbance that can contribute to noxious weed establishment and spread.
34. Maintain stockpiled, un-infested material in a weed-free condition.
35. Prevent the introduction and spread of weeds caused by moving infested sand, gravel, borrow, and fill material.
36. Dispose of noxious weed and non-native vegetation properly to prevent unwanted spread.
37. Avoid or remove sources of weed seed and propagules to prevent new weed infestations and the spread of existing weeds.
38. Ensure that rental equipment is free of weed seed and propagules before the contracting officer's representative accepts it.
39. Avoid acquiring water for dust abatement where access to the water is through weed-infested sites.
40. Re-vegetate disturbed soil (except travel ways on surfaced projects) in a manner that optimizes plant establishment for that specific site. Define for each project what constitutes disturbed soil and objectives for plant cover re-vegetation.

41. Re-vegetation may include topsoil replacement, planting, seeding, fertilization, liming, and weed-free mulching as necessary.
42. Use native material where appropriate and feasible.
43. Use local seeding guidelines to determine detailed procedures and appropriate mixes. To avoid weed-contamination, a certified seed laboratory needs to test each lot against the all-State noxious weed list, and provide documentation of the seed inspection test.
44. Inspect and document all limited term ground-disturbing operations in noxious weed infested areas for at least three (3) growing seasons following completion of the project.
45. Provide information, training and appropriate weed identification materials to people potentially involved in weed introduction, establishment, and spread on BLM lands, including agency managers, employees, permit holders, and recreational visitors.
46. Seed and straw mulch to be used for site rehabilitation (for wattles, straw bales, dams, etc.) all need to be inspected and certified that they are free of weed seed and propagules.
47. To prevent conditions favoring weed establishment, re-establish vegetation on bare ground caused by project disturbance as soon as possible using either natural recovery or artificial techniques as appropriate to the site objectives.
48. Reestablish native vegetation on sites if natural regeneration is unlikely. Use native vegetation that is genetically adapted (e.g., from the same seed zone and of similar elevation) to the area treated when conducting revegetation activities.
49. Mitigate and limit impacts to habitats with existing and healthy native plant populations. Retain native vegetation in and around project areas to the maximum extent possible consistent with project objectives.
50. Where possible, provide interim revegetation in areas being actively disturbed.

Further guidance is provided by the Vegetation Treatments Using Herbicides; Programmatic Environmental Impact Statement (2007) and BLM Handbook 9000

Vegetation Treatments

Vegetation treatments are governed by the Vegetation Treatments Using Herbicides; Programmatic Environmental Impact Statement and Record of Decision (2007); and BLM Handbook 9000.

CHEMICAL AND BIOLOGICAL CONTROL

Standard Operating Procedures and Best Management Practices – Wildlife Damage Management (WDM) Activities

1. Prior to use, ensure biological controls are tested on a variety of species including taxonomically close relatives. Disclose impacts from use of biological controls and develop appropriate mitigation measures to reduce adverse effects. See Vegetation-Weeds SOPs/BMPs starting on Page B-4.
2. No control is allowed on public lands within a mile of any community, major mine, developed recreation site, or any residence, except for the purpose of human health and safety or as requested specifically by a cooperator. Animal and Plant Health Inspection Service-Wildlife Services (APHIS-WS) will notify the WD before any damage control is

implemented within the restricted area(s), and exceptions would be approved on a case-by-case basis. No M-44s or other non-species-specific toxicants are to be used within these areas, in accordance with EPA label use restrictions (i.e., within seven miles).

3. All EPA use restrictions and requirements for toxicants are to be followed where control devices are used on public lands. The WD must be notified before any toxicants are deployed, and a map of the treatment area must be provided. Adequate signs must be provided and maintained.
4. Toxicants and M-44 cyanide devices are not allowed in wilderness areas.

VEGETATION-RANGELAND

Guidance may come from various sources. See individual resources.

Standard Operating Procedure

When making decisions about proposed projects/actions in known sagebrush habitat, existing plans and guidance would be used by interdisciplinary teams and considered in the decision making process. This guidance includes the conservation actions/guidelines identified in the Western Association of Fish and Wildlife Agencies – Guidelines to Manage Sage-Grouse Populations and Their Habitats, the Greater Sage-Grouse Conservation Plan for Nevada and Eastern California and PMU Plans developed by the North Central and Washoe-Modoc local area planning groups.

VEGETATION-RIPARIAN HABITAT AND WETLANDS

Best Management Practices

1. Minimize crossing of streams (intermittent and perennial) and wetlands with vehicles and heavy machinery.
2. Locate residue piles (sawdust, field chipping residue, etc.) away from drainages where runoff may wash residue into water bodies or wetlands.
3. Maintain appropriate vegetative/riparian buffers around water bodies to protect water quality.
4. Manage riparian areas to provide adequate shade, sediment control, bank stability, and recruitment of wood into stream channels.
5. Locate project staging areas for refueling, maintenance equipment, materials and operating supplies in areas not designated as riparian and/or stream bank management zones.
6. Determine the best locations and design for roads, the slope of roads, and the approach to stream crossings through proper planning.
7. Do not locate roads/trails parallel to streams. Where roads must cross streams, cross perpendicularly and then the roads/trails must immediately exit the buffer zone.
8. Appropriate improvements, such as culverts, must be placed at stream crossings to keep vehicles/equipment out of the stream flow and to prevent direct sedimentation of streams.
9. Maintain a minimum of 6 inch stubble height at the end of October on stream bank (lotic) riparian.
10. Maintain a minimum of 4 inch stubble height at the end of October on wet meadows (lentic) systems.

Further guidance may be provided by the State of Nevada BMPs

FISH AND WILDLIFE MANAGEMENT / SPECIAL STATUS SPECIES

Standard Operating Procedures

1. Fences constructed will comply with applicable wildlife fence standards (Fences - BLM Manual Handbook H-1741-1). Existing fences that impede big game movement or that otherwise conflict with wildlife may be modified to comply with applicable wildlife fence standards on a case-by-case basis.
2. The WD will consult agency species management plans and other conservation plans as appropriate to guide management and devise mitigation measures when needed. Examples of these plans include but are not limited to the Intermountain West Regional Shorebird Plan, North American Landbird Conservation Plan, North American Waterbird conservation Plan, National and Nevada Partners in flight Bird Conservation Plans, Nevada Bat Conservation Plan, and the Nevada State Wildlife Action Plan (Comprehensive Wildlife Conservation Strategy).
3. Minimize the potential spread of whitenose syndrome in caves and abandoned mines in accordance with containment and decontamination procedures as identified in WO Instruction memorandum #2010-181.

Best Management Practices

1. Coordinate with the NDOW on BLM projects and BLM authorized projects that are proposed within 0.5 mile of a small capacity water development and 2.0 mile of a large capacity wildlife water development. Projects determined to have a detrimental effect on wildlife using wildlife water developments will be avoided or rerouted if possible.
2. Coordinate with NDOW on migratory bird inventories when migratory bird inventories are proposed by BLM or required of third parties.
3. Coordinate with NDOW when pygmy rabbit inventories are proposed by BLM or required of third parties. The inventories should be completed using standardized protocols such as those developed by Ulmschneider et. al. (2004).
4. Wildlife water developments proposed in Wilderness Study Areas would have to meet the non-impairment criteria.

Standard Operating Procedures and Best Management Practices – Wildlife Damage Management Activities

1. No aerial control activities within a half-mile of active eagle nests between February 1 and August 1. General areas of known active eagle nesting sites will be developed by APHIS-WS, in coordination with Nevada Department of Wildlife (NDOW).
2. The WD will identify through the APHIS-WS annual work plan process other areas of public lands considered special resource use areas on which control activities must be avoided, except as requested by NDOW, or other protective restrictions may apply. Examples include special status species habitats (e.g., sage-grouse leks and nesting areas).

See also Vegetation – Riparian and Wetlands

WILD HORSE AND BURRO

Standard Operating Procedures - Administration/Implementation

1. Standards and Guidelines for Management of Wild Horses and Burros of the Sierra Front – Northwest Great Basin Area (2007);
2. Wild Horse and/or Burro Gathers Standard Operating Procedures (12/07);
3. Wild Horse Fertility Control Treatment Standard Operating Procedures (12/07)

Standard Operating Procedures – Resource Projects

1. All new or reconstructed water exclosures within HMAs or in areas known to be used by wild horses and burros (WHB) will follow the horse fencing standards as identified in *Wildlife Water Catchment Construction in Nevada, Technical Note 397* (9/03).
2. To protect wild horses and burros, flag all new or repaired fencing (wire) every 16 feet with flagging that is at least 1 inch wide and has at least 12 inches hanging free from the top wire of the fence.
3. Require rebar to be welded between the rails of cattle guards if the cattle guard or similar device is to be installed in or near Herd Management Areas to decrease the risk of wild horse and/or burro entrapment.
4. If a project involves heavy or sustained traffic, require road signs for safety and protection of wild horses and burros.

Standard Operating Procedures and Best Management Practices - Outfitter/Guide Permits

1. The Permittee shall inform all staff and clients that WHB are protected by Federal law and will prevent harassment of WHB from permitted activities. Prohibited acts include but are not limited to: maliciously injuring or harassing a wild horse or burro; removing or attempting to remove a wild horse or burro from public lands; destroying a wild horse or burro; selling or attempting to sell a wild horse or burro; and, commercially exploiting a wild horse or burro. Crimes are punishable by fine and/or imprisonment. Examples of violations might include harassment by ATV, injury or death by a bullet or arrow, and illegal capture.
2. Stay at least 100 feet away from wild horses or burros.
3. Try not to place yourself between members of a band or between adjoining bands.
4. Observe wild horses and burros quietly so wild behavior is not disrupted.
5. If you are approached by wild horses or burros while riding horseback, stay calm, maintain control of your animal, and leave the area as soon as you can. Ride with others whenever possible.
6. Mares, especially if in season, may attract wild stud horses to you or your camp. Keep domestic horses secure at all times. Ride with others who are experienced and skilled at resolving unwanted wild horse or burro interactions.
7. Do not feed or try to attract animals towards you.
8. Keep dogs under control so they do not disturb or chase wild horses or burros.
9. Report sick or injured animals, or violations, to the BLM.

10. Please do not attempt to assist or handle sick or injured animals.
11. Still or motion picture photography for personal use is allowed (however, photography for commercial purposes may require a permit). Contact the local BLM office.

Use of Domestic Livestock

1. Adequate water for livestock and dogs may not be available along your route. Springs and other water sources identified on maps may be dry at any time.
2. Bring a sufficient quantity of drinking water for your livestock (15 gal or more/day/animal).
3. Feed weed-free certified hay or pellet feed (www.weedfreefeed.com).
4. Secure your livestock adequately (use portable panels or corrals).
5. Be sure your domestic riding stock are current with annual vaccinations.
6. Do not bring sick or diseased riding animals into HMAs. Wild horses on the range are not vaccinated against any diseases.
7. Do not drive across, camp on, or stake livestock out to graze on riparian areas.
8. Water livestock only at springs or streams with stable banks and dry soils.
9. Keep livestock secured away from camp sites and spread manure before leaving.
10. Explore the area prior to hauling in a trailer to assess access. Pulling horse or other trailers off of State or County designated roads should only be done with prior operator knowledge of the road. Many roads are narrow, rough, steep, or impassable. Turning around may be difficult or impossible, especially with a trailer.

Standard Operating Procedures and Best Management Practices – Recreation (Race) Use

1. The permittee shall do everything possible to insure that event participants and spectators do not harass or collect wildlife, plants, livestock, wild horses or burros, or archaeological features or artifacts;
2. Before the main race begins, the permittee will complete a pre-race sweep to ensure there are no recreation users, wild horses/burros, livestock, or other obstacles on and/or within 100 yards of the course;
3. In the event of a horse or burro/racer collision, the race organizer will notify BLM personnel immediately. The BLM personnel will notify a BLM horse specialist immediately with the given details and exact location of the collision;
4. In the unlikely event that a foaling mare or newborn foal is encountered, every effort should be made to detour the race course away from that location.

Standard Operating Procedures and Best Management Practices – Wildlife Damage Management Activities

1. All aerial control activities in wild horse and burro use areas must be conducted in compliance with all applicable Nevada State Statutes, the provisions of the 1971 Wild and Free-Roaming Horses and Burros Act, as amended, and its associated regulations (43 Code of Federal Regulations, 4700). No harassment of wild horses and burros is permitted under

these provisions; maliciously or negligently injuring a wild horse or burro is also expressly prohibited.

2. During the foaling season (March 1 to June 30), a flyover survey to determine whether wild horses or burros are present will be conducted before any WDM activities. This survey will be conducted at a minimum of 500 feet above ground level. If wild horses or burros are determined to be present, flyover surveys will be adjusted as needed to prevent any disturbance or harassment of the animals.
3. If flyover surveys determine wild horses or burros are not present, WDM activities can be conducted.
4. If flyover surveys determine wild horses or burros are present, no WDM activities can take place that would disturb or harass these animals.
5. All persons involved with WDM activities should be briefed on the regulations and penalties relating to harassment of wild horses or burros before animal control operations.

WILDLAND FIRE ECOLOGY AND MANAGEMENT

Standard Operating Procedures/ Best Management Practices- Fuels Management

1. Construct fuelbreaks or green strips to protect WUI communities and resources and to provide for firefighter and public safety using mechanical, chemical, biological, prescribed grazing, and prescribed fire treatments.
2. Construct fuelbreaks and green strips in areas containing a good understory of native perennials in order to successfully compete with and deter the establishment of annual species.
3. Where possible, construct fuelbreaks/green strips to blend with the surrounding topography. Use existing disturbance such as roads, seeding, burned areas and natural barriers for strategic placement of fuelbreaks.
4. Seed green strips in areas that do not have a good understory of desirable native perennials that can successfully compete with annual species.
5. Where practicable, use large-scale landscape planning to connect fuelbreaks and avoid small piecemeal projects.
6. Maintain fuelbreaks and green strips to ensure that they effectively change fire behavior.
7. Avoid grazing of seeded species during the first growing season following seeding.
8. Where practicable and suitable, reduce new surface disturbance and minimize potential impacts to resource values by constructing fuelbreaks/greenstrips in areas previously disturbed. Areas to be considered include, but are not limited to, roadways, previous burned areas, or within cheatgrass-dominated sites.
9. Where applicable, design fuels treatment objectives to protect existing sagebrush ecosystems, modify fire behavior, restore native plants, and create landscape patterns which most benefit sage-grouse habitat.
10. Provide training to fuels treatment personnel on sage-grouse biology, habitat requirements, and identification of areas utilized locally.

11. Where appropriate, ensure that treatments are configured in a manner (e.g., strips) that promotes use by sage-grouse (see Connelly et al., 2000).
12. Give priority for implementing specific sage-grouse habitat restoration projects in annual grasslands first to sites which are adjacent to or surrounded by sage-grouse key habitats.
13. Strategically place and maintain pre-treated strips/areas (e.g., mowing, herbicide applications, and strictly managed grazed strips) to aid in controlling wildfire should wildfire occur near key habitats or important restoration areas (such as where investments in restoration have already been made).

Standard Operating Procedures - Fire Suppression

1. Avoid whenever possible burning out unburned islands of native vegetation.
2. Avoid surface-disturbing suppression activities in riparian areas whenever possible.
3. Do not construct fire lines using heavy equipment in riparian stream zones, and do not apply fire retardant to water.
4. Avoid the application of retardant or foam within 300 feet (91.5 m) of the stream channel or waterway, when possible. Aerial application and use of retardants and foams should be consistent with national policy guidelines established by the National Office of Fire and Aviation, as amended.
5. If is the unit administrator determines that retardant or surfactant foam must be used within 300 feet (91.5 m) of a waterway or stream channel due to threats to life or property, and if alternative line construction tactics are not feasible because of terrain constraints, congested areas, or lack of ground personnel, or if potential damage to natural resources outweighs possible loss of aquatic life, the unit administrator should determine whether there have been any adverse effects on federally listed species. If the action agency determines that adverse effects were incurred by federally listed species or their habitats, then the action agency must consult with the USFWS, as required by 50 CFR, 402.05 (Emergencies), as soon as practicable.
6. Close lands temporarily to other uses in areas where fire suppression is being implemented.

In addition to the general suppression constraints, the following constraints are to be implemented within the vicinity of special status aquatic species habitats. Sage-grouse f ire suppression BMPs apply plus the following:

7. Stream flow should not be impounded or diverted by mechanical or other means in order to facilitate extraction of water from the stream for fire suppression efforts.
8. The intake end of the draft hose should be screened to prevent entry of fish. Screen opening size should be a maximum of 3/16 inch (4.7 mm).
9. Water extraction should not exceed the ability of the stream inflow to maintain water levels that exist at the time initial attack began. If the water level drops below this predetermined level, all water removal should cease immediately until water levels are recharged.
10. For streams currently occupied by Lahontan cutthroat trout or aquatic special status species, water should not be allowed to be extracted from ponds or pools if stream inflow is minimal (for example, during droughts) and extracting water would lower the pond or pool level.

11. When possible, fire control lines should not cross or terminate at the stream channel.
12. Control lines should terminate at the edge of the riparian zone at a location determined appropriate to meet fire suppression objectives, based on fire behavior, vegetation/fuel types, and firefighter safety.
13. Use available maps and spatial data depicting sage-grouse habitats in suppression response and staging decisions.
14. Continue improving firefighter awareness of the importance of sagebrush habitat.
15. Continue the use of resource advisors who are familiar with local sage-grouse habitat needs, trained in suppression procedures, and can advise about most appropriate tactics, during initial and extended attack.

Standard Operating Procedures – Emergency Stabilization and Rehabilitation (ES&R)

1. Stabilize areas that have low potential to naturally revegetate and that have high wind and soil erosion potential. Treatments include the following:
   a. Installing water bars and other drainage diversions, culverts along fire roads, dozer lines, and other cleared areas;
   b. Seeding and planting to provide vegetative cover;
   c. Spreading mulch to protect bare soil and discourage runoff;
   d. Repairing damaged roads and drainage facilities;
   e. Clearing stream channels of structures or debris that is deposited by suppression activities;
   f. Installation of erosion control structures;
   g. Installation of channel stabilization structures;
   h. Close areas to livestock and wild horse and burro grazing to promote success of natural re-vegetation or establishment of seeded species;
   i. Lands may be temporarily closed to other uses during emergency stabilization and rehabilitation practices if activities inhibit treatment.
   j. Repair or replace range improvements and facilities; and
   k. Monitor ES&R treatments.

Fire Prevention and Mitigation

1. Post fire prevention signs based on National Fire Danger Rating System (NFDRS).
2. Provide fire prevention and mitigation outreach information and education to communities.
3. Reduce the potential for human-caused fires by issuing fire restrictions.

CULTURAL/ PALEONTOLOGICAL RESOURCES and TRIBAL CONSULTATION

Standard Operating Procedures

1. Pursuant to 43 CFR 10.4(g) the holder of a BLM authorization to carry out land use activities on Federal lands, including all leases and permits, must notify the BLM, by

telephone and written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Pursuant to 43 CFR 10.4(c) and (d), activities must stop in the immediate vicinity of the discovery. The discovery must be protected from the authorized activity for a period of 30 days or unless otherwise notified by the BLM.

2. All BLM activities and BLM authorized activities shall comply with BLM Nevada Guidelines and Standards for Archaeological Inventory (2012), related Nevada SHPO guidance on inventory for buildings and structures, and any successor editions; BLM Manual 8100; BLM Manual 8120 (Tribal Consultation under Cultural Resources Authorities); BLM Manual Handbook H-8120-1 (General Procedural Guidance for Native American Consultation); and the current State Protocol Agreement between BLM, Nevada, and Nevada State Historic Preservation Office unless some other agreement (e.g., Programmatic Agreement) has established approved alternative procedures.

VISUAL RESOURCES

Best Management Practices or Standard Operating Procedures

1. Refer to Visual Contrast Rating Worksheet Form 8400-4.
2. Refer to *Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development* (commonly referred to as The Gold Book).
3. The following considerations can be helpful in choosing a project location:

   - Visual contrasts or impacts decrease as the distance between the viewer and the proposed development increases, so projects should be located as far away from prominent viewing locations as possible;
   - The human eye is naturally drawn to prominent topographic features, so projects should not be located on or near such features;
   - The shape and placement of projects should be designed to blend with topographic forms and existing vegetation patterns; and
   - Both topographic features and vegetation should be used to screen proposed development.

4. Techniques that help reduce surface disturbance are as follows:

   - Collocating several projects within the same right-of-way;
   - Placing underground utilities either along the edge or under the surface of an existing road;
   - Placing several underground utilities within the same trench;
   - Establishing limits of disturbance that reflect the minimum area required for construction;
   - Consolidating development of a similar nature within a common structure;
   - Planning projects so that they use existing infrastructure, whenever possible;
   - Maximizing slope when it is aesthetically and technically appropriate;
   - Locating construction staging and administrative areas in less visually sensitive areas; and
   - Requiring restoration of disturbed areas no longer required after construction has been completed

5. Every landscape has the basic elements of form, line, color, and texture. Repeating these elements reduces contrasts between the landscape and the proposed activity or development and results in less of a visual impact.

6. The following considerations can be helpful in making color selections:

   - Natural surfaces are usually well textured and have shade and shadow effects that darken them; surfaces of structures are usually smooth and reflect light even if dull-finish paint is used; so, as a general rule, colors on smooth man-made structures need to be two or three shades darker than the background colors to compensate for the shadow patterns created by naturally textured surfaces that make colors appear darker.
   - The color selection for all structures should be made to achieve the best blending with the surrounding landscape in both summer and winter.
   - Galvanized steel on utility structures should be darkened to prevent glare. Low luster paints should be used wherever possible to help reduce glare. (It is almost impossible to remove all sun glare.)
   - Color (hue) is most effective within 1,000 feet. Beyond that point, color becomes more difficult to distinguish, and tone or value determines visibility and resulting visual contrast.
   - Surface disturbance of western mineralized soils can result in strong color contrasts. In many situations, this suggests that the area should be avoided as a location for the proposed development or that color selections for the man-made facilities or disturbance might need to reflect the lighter color soil revealed by the disturbance.
   - Colors should be selected from a distance that permits viewing of the entire landscape surrounding the proposed development.
   - Colors that blend with or are in harmony with the existing colors of the earth, rocks, and vegetation are usually more visually pleasing and attract less attention than colors that are chosen to match the color of the sky.

7. Another effective method of reducing the visual impact from a proposed activity or development is to retain as much of the existing vegetation as possible and where practical to use the existing vegetation to screen the development from public viewing areas. Some other techniques are as follows:

   - Design vegetative openings to repeat natural openings in the landscape. Edges that are scalloped and irregular are more natural looking; straight line edges should be avoided;
   - Minimize the impact on existing vegetation by:

     - Partially clearing the limits of construction rather than clearing the entire area (leaving islands of vegetation results in a more natural look),
     - Using irregular clearing shapes,
     - Feathering/thinning the edges of the cleared areas to reduce strong lines of contrast; to create a more natural look along an edge, retain a good mix of tree/shrub species and sizes, and
     - Disposing of all slash.

8. The visual impact from new structures placed on the existing landscape can be reduced by using the following:

    - Repeating form, line, color, and texture;
    - Minimizing the number of structures and combining different activities in one structure wherever possible;
    - Using earth-tone paints and stains;
    - Using self-weathering metals;
    - Chemically treating wood so that it can be allowed to self weather;
    - Using natural stone in wall surfaces;
    - Burying all or part of the structure;
    - Selecting paint finishes with low levels of reflectivity;
    - Using rustic designs and native building materials;
    - Using natural-appearing forms to complement landscape character; and
    - Screening the structure from view with natural landforms and vegetation.

9. The scars left by excessive cut and fill during construction in our western landscapes often leave long-lasting negative visual impacts. This is especially true of activities that disturb the highly mineralized soils of the arid West. Once the dark surface soil layer is disturbed, exposing the much lighter color of the subsurface soil, a strong contrast is created that may take years to recover.

    There are a number of ways to reduce the contrasts created by earthwork construction. Proper location and alignment are probably the most important factors. Fitting the proposed development to the existing landforms in a manner that minimizes the size of cuts and fills will greatly reduce visual impacts from earthwork. Other earthwork design techniques, such as balancing cut and fill or constructing with all fill or all cut should be considered, where appropriate, as methods to reduce strong visual impacts. Other strategies are as follows:

    - Hauling in or hauling out excessive earth cut or fill in sensitive viewing areas;
    - Rounding or warping slopes (shaping cuts and fills to appear as natural forms);
    - Bending slopes to match existing landforms;
    - Retaining existing rock formations, vegetation, and drainage, whenever possible;
    - Split-face rock blasting (cutting rock areas so that the resulting rock forms are irregular in shape, as opposed to making uniform "highway" rock cuts);
    - Toning down freshly broken rock faces using asphalt emulsions and rock stains;
    - Using retaining walls to reduce the amount and extent of earthwork;
    - Retaining vegetation by using retaining walls, reducing surface disturbance, and protecting roots from damage during excavation;
    - Avoiding soil types that will generate strong contrasts with the surrounding landscape when they are disturbed; and
    - Prohibiting dumping of excess earth/rock on downhill slopes.

10. Strategies for restoration and reclamation are akin to the design strategies for earthwork, as well as the design fundamentals of repeating form, line, color, and texture and reducing unnecessary disturbance. The objectives of restoration and reclamation include reducing long-term visual impacts by decreasing the amount of disturbed area and blending the

disturbed area into the natural environment, while still providing for project operations.

Though restoration and reclamation are a separate part of project design, they should not be forgotten or ignored. It is always a good idea to require a restoration/reclamation plan as part of the original design package. All areas of disturbance that are not needed for operation and maintenance should be restored as closely as possible to previous condition.

Several strategies that can enhance any restoration or reclamation effort are as follows:

- Striping, saving, and replacing topsoil (six-inch surface layer) on disturbed earth surfaces;
- Enhancing vegetation by

  - Mulching cleared areas,
  - Furrowing slopes,
  - Using planting holes on cut/fill slopes to retain water,
  - Choosing native plant species,
  - Fertilizing, mulching, and watering vegetation,
  - Replacing soil, brush, rocks, forest debris over disturbed earth surfaces when appropriate, thus allowing for natural regeneration rather than introducing an unnatural looking grass cover; and

- Minimizing the number of structures and combining different activities in one structure wherever possible.

11. Projects and activities associated with linear alignments include rights-of-way, roads, trails, pipeline developments, and underground and overhead utility lines. The visual impact of a linear project depends largely on where it is located and how it is molded to the natural terrain. Proper location can often contribute significantly to reducing line and color impacts, making other measures either unnecessary or less costly and easier to accomplish.

    Finding the best route for linear alignments involves the following:

    - Identifying and analyzing all possible corridor alignments and selecting the one most feasible for the proposed project and
    - Locating the proposed project within the selected corridor after a thorough analysis of all environmental, socioeconomic, and engineering factors.

    There are several major considerations for determining an alignment:

    - Topography is a crucial element in alignment selection. Visually, it can be used to subordinate or hide man-made changes in the landscape. Projects located at breaks in topography or behind tree groupings are usually of much less visual impact than projects on steep side slopes. By taking advantage of natural topographic features, cut and fill slopes can be greatly minimized;
    - Topographic breaks frequently exhibit a natural line element that the proposed alignments can repeat or blend with to strengthen the design. This line element is

partly established by a visual shadow zone, which will further reduce the contrast of the project;

- Soils are especially important when selecting an alignment and should be analyzed for stability and fertility, and a revegetation program should be planned;
- Hydrological conditions can strongly affect the visual impact of buried and surface construction. The risks of surface and subsurface erosion within the corridor should be analyzed and evaluated;
- Crossings with other linear features or structures should be designed to minimize their visual impact:
  - When possible, crossings should be made at right angles,
  - Structures should be set as far back from the crossing as possible, and
  - In areas with tree and shrub cover, the rights-of-way and structures should be screened from the crossing area.

It is important to remember that when a system is planned and designed:

- Other services that will be needed to support the system must be analyzed and included in the design considerations. For example, a construction access road, electrical power with a backup system, and sanitation facilities are usually needed for most projects. At times, the visual impact of the support facilities is the deciding factor for the specific location of the main project.
- How the system is to be maintained must also be considered.
- A rehabilitation plan should be developed. All areas of disturbance that are not needed for operation and maintenance should be restored as closely as possible to previous conditions.

Determining the engineering design, landscape design, and visual considerations for a linear alignment must be accomplished together to ensure that all three are addressed and included in the final design solution.

LIVESTOCK GRAZING

Standard Operating Procedures

1. Adhere to the NW/ Sierra Front-Northwestern Great Basin – Resource Advisory Council Standards and Guidelines for Rangeland Health.
2. Allow regrowth before winter or ungrazed fall growth – recovery of root carbohydrates.
3. Usually it is necessary to protect seedings from grazing for one full year and through the growing season of the second year. Some seedings established during adverse weather cycles may need protection for a longer period.
4. Development of springs and seeps or other projects affecting water and associated resources shall be designed to maintain the associate riparian area and assure attainment of standards.
5. Adhere to guidelines listed in the State of Nevada BMPs.
6. Conduct periodic compliance inspections on grazing allotments to ensure adherence to mandatory terms and conditions of grazing permits.

Best Management Practices

1. Livestock grazing could be used as an intensively managed prescriptive grazing practice to control cheatgrass and noxious or invasive weeds.
2. In spring, graze for a short duration earlier in the season so that sufficient soil moisture remains for plant recovery.
3. Implement short duration grazing (up to 3 weeks) (more animals/smaller pastures) where infrastructure permits during the growing season. Avoid re-grazing the same plants in one growing season.
4. Rotate livestock use areas year to year - not in the same place at the same time each year.
5. Graze during the dormant season to allow plants to recover every year.
6. Allow for rest/recovery periods before or after grazing during critical growth period.
7. Maintain range developments to maintain or improve distribution.
8. Avoid use most years in areas of valuable woody plants during times when they are selected.
9. Avoid selective use on key species by rest following heavy dormant season use.
10. Graze established seedings to avoid decadent plants and poor nutrient cycles; particularly in Crested Wheatgrass seedings.
11. Avoid the following grazing management practices:
    a. Long seasonal use with no recovery time
    b. Heavy use - stresses plants,
    c. Little or no re-growth before winter - little stubble for root crown protection
    d. Use at the same time every year - repeating the stress
    e. No rest or growing season recovery - little recovery with long seasons of use
    f. Little or ineffective herding
    g. Salt placed in the same locations year after year
    h. Livestock left behind after pasture moves
    i. Grazing during the critical growth period year after year
12. Seedings generally should not be grazed until the plants are well established.
13. Use rotation or deferment to vary the timing of grazing to allow for periodic rest of upland vegetation during critical growth periods.
14. Provide occasional rest to allow whole growing season for recovery.
15. When using livestock to control cheatgrass or noxious or invasive weeds, match animal dietary preference or tolerance to the target species.
16. Use the target weed's biology when developing a grazing strategy.

17. Manage heavy grazing on target weed species to account for any intermixed desirable species.

18. Manage animals' post treatment grazing to contain weed seeds.

Best Management Practices - Vegetation/Riparian Zone Management Guidelines

1. Achieve proper functioning condition by managing livestock grazing with appropriate riparian management practices.
2. Graze earlier in the season when cattle use uplands.
3. Plants should be grazed only once or twice per year.
4. Avoid hot season grazing of riparian areas.
5. Allow re-growth before winter by grazing early enough for substantial plant re-growth during the growing season to slow spring flows and retain soil.
6. For maintenance or improvement of willows, allow two growing seasons rest prior to late season use.
7. Maintain/provide alternate water sources for better distribution.
8. In addition to the grazing management practices to avoid listed above, the following should also be avoided.
   a. Hot season grazing in big pastures with little riparian - poor distribution;
   b. Few waters and only riparian waters – poor distribution;
   c. Heavy use - stresses plants, tramples banks, and/or consumes last year's wood;
   d. Little or no regrowth before winter - little stubble for sediment.

MINERALS AND ENERGY

Actions involving minerals and energy are governed by:

1. Surface Operating Standards and Guidelines to Oil and Gas Exploration and Development" (also known as "The Gold Book") (2007).
2. Mineral Materials Disposal Handbook H-3600-1 (2002).
3. Solid Minerals Reclamation Handbook H-3042-1.
4. State of Nevada BMPs; Chapter 9 (Internet Web site: 222.ndep.nv.gov/bwqp/bmp05.htm).
5. 43 CFR 8900 et seq.
6. Onshore Orders 1-8.

Best Management Practices - Fluid Mineral Leasing

Exploration

1. Temporary gates would be installed for use during the course of operations, unless the fence was immediately repaired. On completion of operations, fences would be restored to at least their original condition.

2. During periods of adverse conditions affecting soil moisture caused by such climatic factors as thawing, heavy rains, snow, flooding, or drought, all activities off existing maintained roads that create excessive surface rutting must be mitigated or may be suspended.
3. Off-road vehicle travel would be limited to that necessary to complete the geophysical operations.
4. The use of specialized low surface impact equipment (wide- or balloon-tired vehicles, ATVs) or helicopters may be required for any activities in off-road areas to protect the fragile soils or other resource values.
5. Powder magazines would be located at least a mile from traveled roads, unless otherwise authorized after analysis or review. Loaded shot holes and charges would be attended at all times.
6. All trash, flagging, and lath will be removed and hauled to an authorized disposal site. No oil or lubricants would be drained onto the ground surface.
7. The underside of all heavy equipment must be cleaned by water before being driven onto public lands. Driving through or parking on noxious weed infestations would be avoided.
8. All topsoil from all disturbances would be stockpiled for use in reclamation projects.
9. Vegetation that is removed would be stockpiled, shredded, and used as mulch during site rehabilitation.
10. Geophysical drill hole cuttings would be returned to the hole if possible, or at a minimum, it would be raked and spread out so as not to impede regrowth of vegetation or to create erosion problems.

Pre-Construction

1. Existing roads should be used to the extent possible. Additional roads, if needed, would be kept to an absolute minimum and the location of routes must be approved by the AO before construction.
2. All access roads would be constructed and maintained to BLM road standards according to the Gold Book (2007) and BLM Manual 9113 (BLM 2011).
3. Off-road travel would be restricted to terrain with less than 30 percent slopes, 20 percent if highly erodible.
4. Proposed surface disturbance and vehicular travel would be limited to the approved well location and access route.

Well Pad and Facility Construction

1. Every pad, access road, or facility site must have an approved surface drainage plan.
2. Drainage from disturbed areas would be confined or directed so that erosion of undisturbed areas would not be increased.
3. No runoff water (including that from roads) would be allowed to flow into intermittent or perennial waterways without first passing through a sediment-trapping mechanism. Erosion control structures may include water bars, berms, drainage ditches, sediment ponds, or devices.

4. Access road construction for exploratory wells should be planned such that a permanent road could later be constructed in the event of field development.
5. Construction of access roads on steep hillsides and near watercourses would be avoided where alternate routes provide adequate access.
6. Access roads requiring construction with cut and fill would be designed to minimize surface disturbance and take into account the character of the landform, natural contours, cut material, depth of cut, where the fill material would be deposited, resource concerns, and visual contrast.
7. Fill material would not be cast over hilltops or into drainages. Cut slope ratios should normally be no steeper than 3:1 and fill slopes no steeper than 2:1.
8. Low water crossings would be used whenever possible.
9. Well site layout should take into account the character of the topography and landform. Deep vertical cuts and steep long fill slopes should be avoided. All cut and fill slopes should be constructed to the least percent slope practical.
10. Trash would be retained in portable trash cages and hauled to an authorized disposal site for disposal. Burning would not be allowed on the well site.
11. Cattle guards would be installed and maintained whenever access roads were through pasture gates or fences. Maintenance includes cleaning out under cattle guard bases, when needed.
12. Mud, separation pits, and other containments used during the exploration or operation of the lease for the storage of any hazardous materials would be adequately fenced, posted, or covered.

Utilization

1. Operations would be done in a manner that prevents damage to or interference or disruption of water flows and improvements associated with all springs, wells, or impoundments.
2. Companies controlling roads that provide access into crucial wildlife areas may be required to close the road with a lockable gate to prevent general use of the road during critical periods of the year when resource problems are experienced (for example, during hunting seasons and winter).
3. The use of closed road segments would be restricted to legitimate authorized agents of the lessee or their subcontractor(s), the land managing agency, and other agencies with a legitimate need (for example, NDOW and other law enforcement agencies).
4. Closing and reclaiming unnecessary roads may be required to reduce fragmentation and restore habitat integrity, while reducing the potential for wildlife disturbances.
5. Road closures may be implemented during crucial periods (e.g., wildlife winter periods, spring runoff, calving and fawning seasons, saturated soil conditions).
6. Petroleum products, such as gasoline, diesel fuel, helicopter fuel, crankcase oil, lubricants, and cleaning solvents used to fuel, lubricate, and clean vehicles and equipment would be stored in approved containers.

7. Hazardous materials would be properly stored in separate containers to prevent mixing, drainage, or accidents. Hazardous materials would not be drained onto the ground or into streams or drainage areas.
8. Totally enclosed containment would be provided for all solid construction waste. Trash, garbage, petroleum products, and related litter would be removed to an authorized sanitary landfill approved for the disposal of these classes of waste.

RENEWABLE ENERGY

Standard Operating Procedures

1. Authorize ROWs by applying appropriate BMPs (BLM Wind Energy Development EIS, June 2005), land use restrictions, stipulations, and mitigation measures.
2. An Environmental Assessment is required for applications for monitoring sites in known Sage-Grouse Population Management Units.

TRANSPORTATION AND ACCESS

Standard Operating Procedures

1. Continue coordination with counties and other agency road entities to promote utilization of Best Management Practices for road maintenance they perform within WD boundaries.
2. Maintain an inventory of existing road and trail systems.
3. BLM Manual 9113.16 and BLM Handbook 9113-2 will be used to guide all maintenance and road construction designs and requirements. Include definitions for functional road classification and maintenance levels for BLM roads.
4. All highway ROWs and other road authorizations would contain noxious and invasive weed stipulations that include prevention, inventory, treatment, and revegetation or rehabilitation. Road abandonment would include at least three years of post abandonment monitoring and treatment.

Best Management Practices

1. In order to ensure public access and safety, BLM WD shall continue an active road maintenance program employing the use of redesign, blading, brush removal for sight distance as appropriate, scarification, graveling, water barring, low water crossings, spur ditching, seeding and installation /cleaning of culverts.
2. National Environmental Policy Act (NEPA) Requirements – No new NEPA analysis would be required for road maintenance activities within the defined maintenance disturbance/easement footprint, which is defined as previously disturbed or maintained. Disturbance outside of the defined maintenance disturbance/easement footprint or road realignment would be subject to additional NEPA compliance.

LANDS AND REALTY

Standard Operating Procedures

Power lines shall be constructed in accordance to standards outlined in "Suggested Practices for Raptor Protection on Power Lines, The State of the Art in 1996," (Avian Power Line Interaction Committee (APLIC), 1996, Edison Electric Institute and the Raptor Research Foundation, Inc.,

Washington, D.C.). Right-of-way applicants shall assume the burden and expense of proving that proposed pole designs not shown in the above publication are "raptor safe." Such proof shall be provided by a raptor expert approved by the Authorized Officer.

ROWs and other lands and realty authorizations, including power lines, pipelines, transmission corridors, energy development sites and related development, and gravel pits, would contain noxious and invasive plant management terms or stipulations for all ground-disturbing actions. These would include conducting a pre-disturbance noxious weed inventory, designing to avoid or minimize vegetation removal and weed introduction or spread, managing weeds during the life of the ROW or authorization to prevent or minimize weed introduction or spread, abandoning the ROW or authorization to establish competitive vegetation on bare ground areas, and monitoring revegetation success and weed prevention and control for a reasonable number of years.

Best Management Practices

Coordinate with the NDOW early in the sale process on proposals to sell public land encumbered by a small capacity wildlife water development.

RECREATION

Guidance for recreation use can be found in the Land Use Planning Handbook H-1601-1 Appendix C Section II-C; the Recreation Permit Administration Handbook H-2930-1 and 3 CFR 2930.

Special Recreation Permits would contain noxious weed management stipulations (e.g., pre-event inventories to avoid infested areas, event management to avoid or isolate activities that could cause weed introduction or spread, monitoring and treatment of infestations exacerbated by the activity, and other appropriate noxious weed management stipulations).

Lands may be temporarily closed to other uses during recreation performed under a special recreation permit (e.g., equestrian endurance rides or motorcycle events).

WILDERNESS STUDY AREAS and LANDS with WILDERNESS CHARACTERISTICS

Standard Operating Procedure

All Wilderness Study Areas (WSAs) will be managed in accordance with the Interim Management Policy and Guidelines for Lands under Wilderness Review H-8500-1 (IMP).

Standard Operating Procedures and Best Management Practices - Wildlife Damage Management Activities

1. APHIS-WS will notify the WD before any control activity is implemented in a wilderness area to ensure that all proposed actions are in accordance with BLM 6300 Wilderness Regulations and BLM Manuals H-8560 and 8560-1.
2. District-wide wilderness maps will be used for general reference. Maps with a scale of at least one-half inch to the mile will be used in the field during APHIS-WS activities to determine wilderness boundaries.
3. Wildlife damage control in BLM Wilderness Areas may be necessary to protect federally listed threatened or endangered species, to prevent transmission of diseases or parasites affecting other wildlife and humans, to manage reintroduced indigenous wildlife species, or to prevent serious losses of domestic livestock. Control of nonindigenous species also may

be necessary to reduce conflicts with indigenous species. Acceptable control measures include lethal and nonlethal methods, depending on need, justification, location, conditions, efficiency, and applicability of state and federal laws. These control measures must be consistent with Section 4(c) of the Wilderness Act of 1964 to ensure that prohibited uses are avoided and must be the minimum amount of control necessary to resolve wildlife damage problems. APHIS-WS, BLM, NDOW (or other approved state agency) will implement control measures, in accordance with cooperative agreements or memoranda of understanding.

4. Wildlife damage control measures involving the use of motorized vehicles, motorized equipment, or mechanical transport in wilderness areas must be approved by the WD on a case-by-case basis.
5. Toxicants and M-44 cyanide devices are not allowed in wilderness areas.
6. Interim Management Policies must be adhered to at all times in WSAs, and the WD must be notified before any WDM activity is implemented. WDM activities in Wilderness Areas and WSAs must be directed at the offending animal.

PUBLIC HEALTH AND SAFETY

Standard Operating Procedures and Best Management Practices - Wildlife Damage Management Activities

1. No control is allowed on public lands within a mile of any community, major mine, developed recreation site, or any residence, except for the purpose of human health and safety or as requested specifically by a cooperator. APHIS-WS will notify the WD before any damage control is implemented within the restricted area(s), and exceptions would be approved on a case-by-case basis. No M-44s or other nonspecies-specific toxicants are to be used within these areas, in accordance with EPA label use restrictions (that is, seven miles).
2. Control activities, such as distance and signs, next to state or federal highways and county-maintained roads must be consistent with the NDOW trapping regulations.
3. All EPA use restrictions and requirements for toxicants are to be followed where control devices are used on public lands. The WD must be notified before any toxicants are deployed, and a map of the treatment area must be provided. Adequate signs must be provided and maintained.
4. All equipment (including traps, snares, and M-44s) and warning signs will be removed from bird-hunting areas, identified in coordination with NDOW, no later than one week before the opening day of the hunting season.
5. The WD will identify through the APHIS-WS annual work plan process other areas of public lands considered special resource use areas on which control activities must be avoided, except as requested by NDOW, or other protective restrictions may apply. Examples are special status species habitats (e.g., sage-grouse leks and nesting areas).

SUMMARY

The BMPs/SOPs listed in this handbook are not "one size fits all" and do not encompass all the effective BMPs/SOPs currently required and/or available. These BMPs/SOPs expand and

supplement the basic guidelines and minimum requirements of the BLM Manuals; Practices Regulations. However, several common themes related to the mitigation of environmental impacts were expressed throughout the previous sections. They include:

1. The need for proper planning related to timing, spatial extent, and duration are critical to minimize environmental impacts.
2. The value of consulting with specialists (e.g., cultural resource offices and weed managers) to make educated and accurate management decisions.
3. The importance of considering more than one factor (e.g., wildlife, water quality.) when developing and/or implementing management activities.
4. The necessity of contingency revegetation plans in cases where natural reestablishment of native vegetation may not be feasible due to lack of seed source or impacts from competing non-native/invasive vegetation.
5. The need to give special emphasis to the protection of sensitive resources (e.g., listed species habitats, cultural resources, etc.).
6. The importance of developing inventory and monitoring strategies.

Regardless of the project proposed or outcomes desired, managers involved in integrated vegetation management should consider these six thematic best management practices as well as the protection of human health and safety throughout all stages of planning and implementation.

SOURCES & GENERAL REFERENCES

The following list identifies additional resources that BLM may consult, on a case-by-case basis, for additional BMP guidance applicable in the WD planning area:

Instruction Memorandums and Technical Documents

BLM Instruction Memorandum No. 2007-021. Integration of Best Management Practices into Application for Permit to Drill Approvals and Associated Rights-of-Way.

BLM Best Management Practices (BMPs) Information Sheets (2004). (http://www.blm.gov/style/medialib/blm/wo/MINERALS__REALTY__AND_RESOURCE_PROTECTION_/bmps.Par.73748.File.dat/WO1_WO_BMPs_Technical_Information_Sheets.pdf)

Land Use Planning

BLM, Record of Decision - Implementation of a Wind Energy Development Program and Associated Land Use Plan Amendments, (December 2005). http://www.windeis.anl.gov/documents/ docs/WindPEISROD.pdf.

BLM, Final Programmatic EIS Record of Decision to Evaluate Wind Energy Development on Western Public Lands Administered by the Bureau of Land Management (2005).

BLM, Record of Decision for Vegetation Treatment on BLM Lands in Seventeen Western States (2007).

BLM, Approved Resource Management Plan Amendments/Record of Decision (ROD) for Designation of Energy Corridors on Bureau of Land Management-Administered Lands in the 11 Western States (January 2009).

Manuals and Handbooks

BLM Manual 9113.16

BLM Handbook 9113-2

EPA, Inactive Mine Site Characterization and Cleanup Handbook, EPA 910-8-00-001, U.S. EPA, August 2000

Nevada Division of Environmental Protection and the Nevada Division of Conservation Districts, Handbook of Best Management Practices (1994).

State of Nevada Best Management Practices Handbook (1994)

Reports

BLM, Programmatic Environmental Report for Vegetation Treatments on BLM land (2005)

EPA, Drinking Water Academy Bulletin, Managing Septic Systems to Prevent Contamination of Drinking Water, July 2001, EPA-816-F-01-030

USDA FS, Drinking Water from Forests and Grasslands: A Synthesis of Scientific Literature, General Technical Report SRS-39, September 2000

Standards and Guidelines

BLM Visual Resource Management for Fluid Minerals. Best Management Practices/Participants Notebook Field Reference Guide, 2007.

BLM and US Forest Service, Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development (commonly referred to as The Gold Book). 4th edition, 2007.

General Water Quality Best Management Practices, Pacific Northwest Region, U.S. Forest Service, November 1988

Low-Volume Roads Engineering, Best Management Practices Field Guide. Developed by Gordon Keller & James Sherar.

Nevada Northeastern Great Basin Resource Advisory Council (RAC). Standards and Guidelines for Management of Wild Horses and Burros of the Sierra Front-Northwest Great Basin Area

Nevada Northeastern Great Basin Resource Advisory Council (RAC), the Sierra Front Northwestern Great Basin RAC, and the Mojave-Southern Great Basin RAC, as chartered by the Department of the Interior. 2007. OHV Administration Guidelines for Nevada Public Lands, http://www.blm.gov/nv/st/en/res/resource_advisory/sierra_front-northwestern/standards_and_guidelines.html. Accessed October 22, 2007

RAC Standard and Guidelines for Rangeland Health. http://www.blm.gov/nv/st/en/res/resource_advisory/sierra_front-northwestern/standards_and_guideline.html

Standards and Guidelines for Management of Wild Horses and Burros of the Sierra Front-Northwest Great Basin Area.

Standards and Guidelines for Livestock Management in the Nevada's Sierra Front-Northwestern Great Basin Area

State of Nevada Best Management Practices Handbook: http://ndep.nv.gov/bwqp/bmp05.htm

U.S. Dept. Transportation, Best Management Practices for Erosion and Sediment Control (current edition).

Low-Volume Roads Engineering, Best Management Practices Field Guide, (2003) developed by Gordon Keller & James Sherar of the US Forest Service. This document presents recommended practices for low-volume roads (defined as having an average daily traffic (ADT) of less than 400 vehicles per day, and usually has design speeds of less than 50mph.

Useful Web sites:

http://www.epa.gov/air/criteria.html

http://ndep.nv.gov/baqp/baqpollu.html

http://ndep.nv.gov/bwqp/bmp05.htm

Interagency Operating Procedure References

BLM, 2006, BLM Manual 9011-Chemical Pest Control. Available at http://www.blm.gov/ca/st/en/prog/weeds/9011.print.html. Accessed October 30, 2008

BLM, 2007a, Record of Decision for the Final Programmatic Environmental Impact Statement for Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States, U.S. Department of the Interior, September.

BLM, 2007b, Vegetation Treatments on Bureau of Land Management Lands in 17 Western States Final Programmatic Environmental Report, U.S. Department of the Interior, June.

BLM, 2008, Integrated Vegetation Management Handbook 1740-2, Programmatic Biological Assessment for Vegetation Management, U.S. Department of the Interior.

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Cooperating Agencies

U.S. Fish and Wildlife Service

U.S. Bureau of Reclamation

Nevada Department of Wildlife

Nevada Department of Agriculture

Humboldt County

Pershing County

Washoe County

City of Winnemucca

N-2 Grazing Board

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WINNEMUCCA DISTRICT
Nevada BLM